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June 1975

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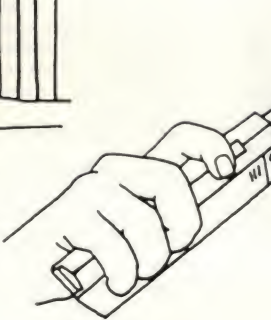


2. Do policemen who stand outside No. 10 Downing Street come from a specialised branch of the police force?

3. What does a blue band round a police cap denote?



4. How long does a personal radio battery last?



5. Would you ever see a policeman dressed like this?



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1. Yes, in an emergency.
2. No, it's a normal part of police work.
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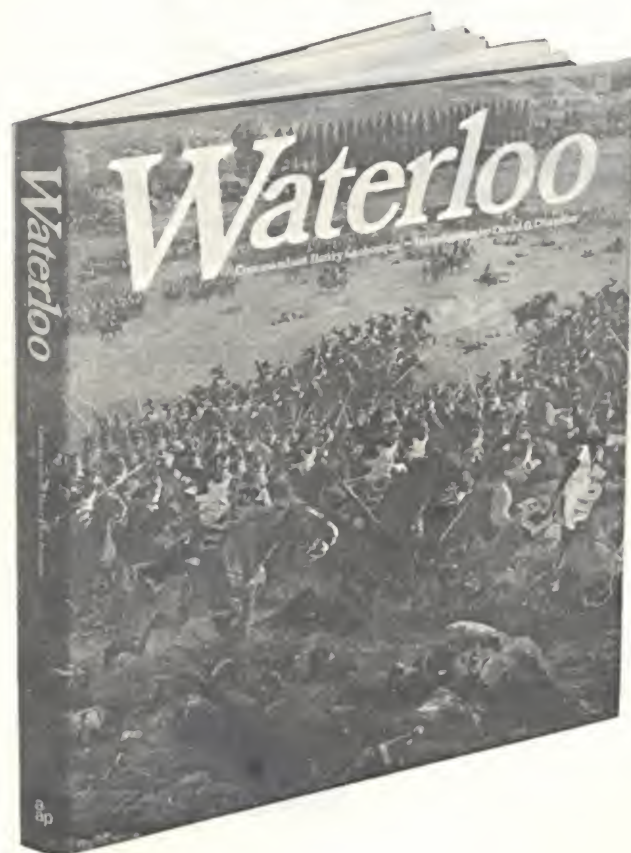
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By HEW STRACHAN

This volume records, and illustrates with 70 plates, the changes in the dress of the British Army from the year of the most important warrant regarding dress (1768) to the year of the next main landmark in uniform history (1796), presenting much information never before published. Here, verbatim, are official records, warrant orders and instructions extracted from the Public Records Office, the War Office Library and the National Army Museum records. During the relevant years the British soldier — in addition to serving on the Continent, in India, in South Africa and in the West Indies — primarily saw service in America, where experiences gained from the American Rebellion had a significant effect on the evolution of uniforms. Chapters deal in turn with the Army; General Officers and the Staff; Household Cavalry; Cavalry of the Line (Heavy Cavalry and Light Dragoons); Foot Guards; Infantry (Regiments of Foot and the Highlanders); Royal Artillery; Engineers and Artificers.

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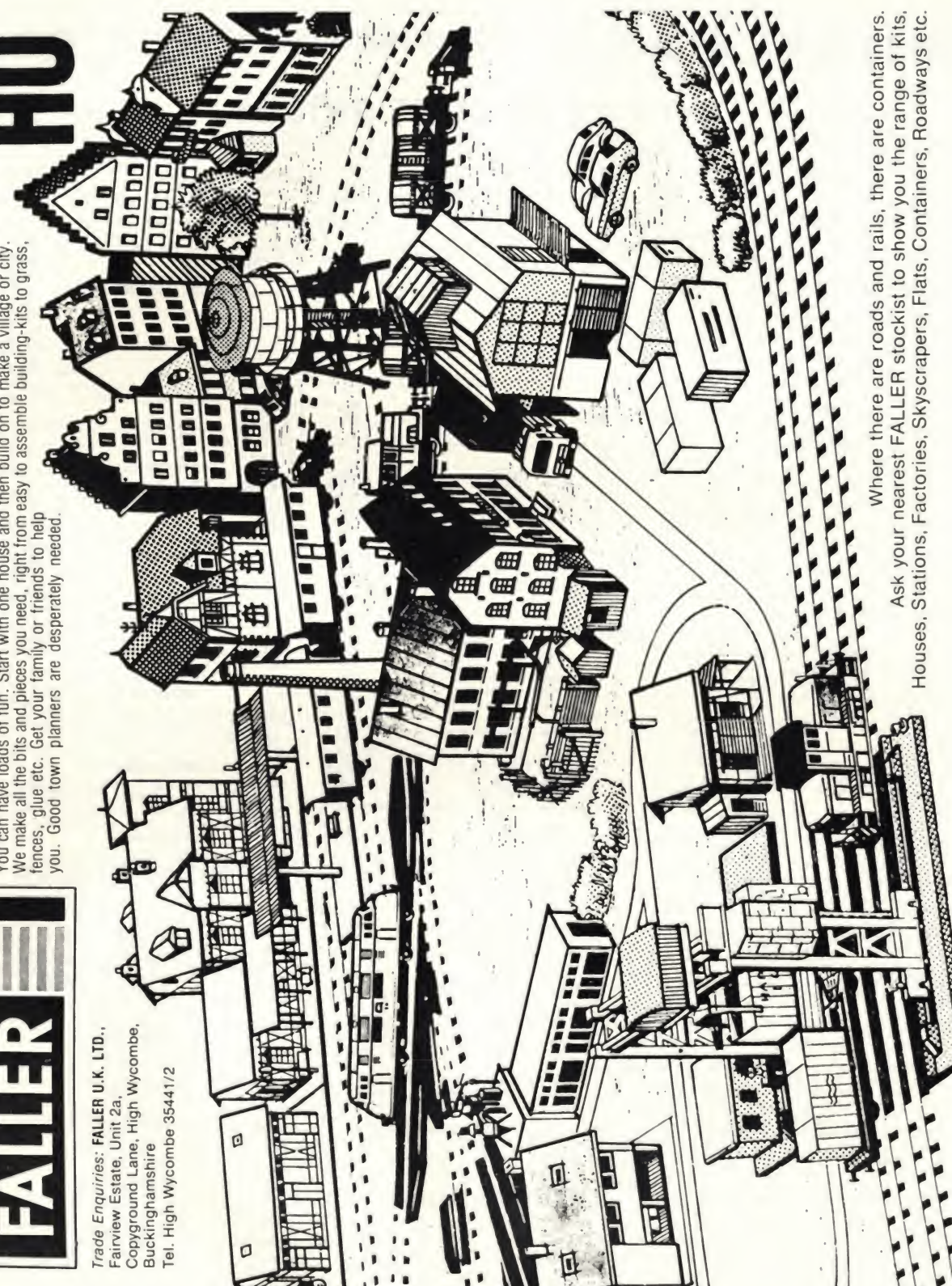
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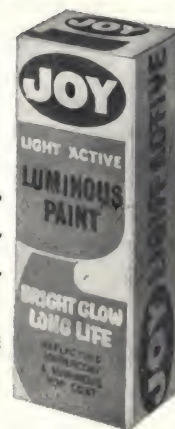
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AIRFIX magazine

June 1975
Volume 16 Number 10

FOR PLASTIC MODELLERS

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Editorial Director **Darryl Reach**
Editor **Bruce Quarrie**
Art Editor **Ian Heath**

Cover Picture

This interesting and little-known vehicle is a Finnish real-life conversion on a captured Russian BT-5 chassis with a new turret mounting a Spanish 114 mm howitzer. Designated BT-42, this infantry support tank saw service with the Finnish army against the Russians during 1941-5. If any readers have any further information on the vehicle, the numbers which were converted, crew, armour and performance statistics, the editor would very much like to hear from them (*Karl Haugsted*).

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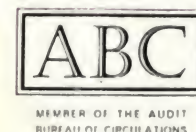
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news from AIRFIX

1 Sopwith Pup 2 Cowboys and Indians

1

THE LATEST aircraft to join the ranks of kits in the Airfix 1:72 scale range is the Sopwith Pup. The kit comes in 26 parts that make up to a really impressive model of this fine bi-plane. Details like the working rotary engine, the .303 in Vickers machine-gun and the pilot figure are all accurately reproduced. Two sets of markings are given — one for 4 Squadron in Royal Naval Air Service in 1917 and the other for 'B' Flight of 46 Squadron Royal Flying Corps of 1917.

Veteran of the 1916/17 Western Front air battles, the Sopwith Pup — or Scout as it was officially known — gained a high reputation among pilots for its impeccable handling qualities. A total of 1,770 Pups was built and were flown by five Royal Flying Corps squadrons and eight Royal Naval Air Service units. A number survived the war to fly in civilian guise into the 1920s.

Price of this kit is 25p.

2

TWO NEW additions to the 1:32 figures series, each pack contains 22 pieces — Cowboys and Indians will be a sure-fire hit with boys (and probably girls too in these days of equality) of all ages.

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The Cowboys pack contains ten standing figures — firing pistols and holding rifles — four mounted figures, four saddles and four horses. The Indians pack contains ten standing figures in full war dress carrying spears, tomahawks, knives, bows and arrows and rifles, four mounted figures, saddles and horses. There is a chief in his long feather head-dress, a warrior wearing buffalo horns and another with a bearskin, complete with head, worn over his own head — a truly fearsome band.

Each pack is an entity in itself — Indian can fight Indian and cowboys always seem to have a lot to argue about — or they can be used together.

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THERE CANNOT BE many units that have been based at the same airfield, operating in the same role, for over 25 years, yet the Royal Navy has one such unit — No 781 Squadron, who provide communication flights and other services from 'HMS Daedalus', the Royal Naval Air Station at Lee-on-Solent, Hants.

This squadron was first formed as a Fleet Requirements Unit in East Africa in 1936, but moved to Lee-on-Solent in 1939, operating in the communications role throughout the Second World War. In 1945 the squadron was divided to form Nos 799A and 799B Squadrons, but No 781 was reborn from 799B in 1947.

By 1952 No 781 comprised four Flights with the following aircraft: Communications Flight — Sea Prince, Expeditor, and Dominie; Training Flight — Firefly, Firefly Trainer, Harvard and Sea Fury; Instrument Examining Flight — Firefly Trainer, Sea Fury Trainer, Meteor T7 and Oxford; SAR Flight — Sea Otter.

A varied range of aircraft have been employed over the years with such types as the Anson, Tiger Moth, Swordfish, Balliol and Vampire. In 1955 the first Sea Devons arrived, and in 1959 No 781 acquired its first helicopter — a Whirlwind. 1961 saw the Sea Heron in service, and by 1966 No 781 had four Sea Devons, three Sea Herons, two Whirlwinds and a Sea Hawk on strength. The first Wessex was delivered in June 1969, to replace the Whirlwind, and with the Sea Hawk gone No 781 settled into the form in which it is today, with the addition of further Wessex and a Chipmunk.

The main function of No 781 is to provide communication flights for VIPs, Naval and other Service personnel, and many well-known political and Service names have been carried over the years. Two scheduled routes are flown, with Sea Herons, and each operates twice a week. The 'Western' route is from Lee to Yeovilton, Exeter, Culdrose, and return, whilst the 'Northern' routes via Yeovilton, Liverpool (optional refuelling stop), Prestwick, Glasgow, Edinburgh, RAF Leuchars, to RAF Lossiemouth, with return the following day. In addition, a large number of communication flights are operated for the Navy on an 'as required' basis throughout Western Europe, and these have ranged from Northern Norway to the Mediterranean in support of NATO exercises, etc. Sea Herons are used on the longer stages, and full civil procedures are followed when flying in controlled airspace or on airways.

However, communications are by no means the only tasks that No 781 is asked to perform. For example, both Sea Devons and Sea Herons can be converted for use as flying ambulances; target aircraft are provided for the Naval gunnery ranges near Portsmouth; and patrol flights are flown for fishery protection purposes, an activity that is expected to increase in the future.

24 hours a day, 365 days a year, No 781 has a Sea Heron on a four-hour standby in readiness to provide an emergency service to any locality. A highly experienced crew is employed for this task, and competition for places on this crew is keen. A possible role



No 781 Squadron — the Navy's airline

for this standby service would be to fly underwater experts from the nearby submarine base at Gosport to assist at any submarine emergency that may occur.

An important new task is surveillance of the Straits of Dover to enforce the shipping traffic lanes, in co-operation with HM Coast Guard, for the Department of Trade and Industry. A Sea Devon is based at RAF Manston from Monday to Friday, and when the Coast Guard radar at St Margaret's Bay tracks a ship that is not following its correct path through this very busy stretch of water, the aircraft is sent out to establish the identity of the offending vessel. The CG radar monitors the operation, to ensure that the correct ship is being 'booked', and often a prosecution results.

One Sea Devon is employed solely on conversion training for pilots newly posted to the squadron, whilst the Chipmunk is used for glider towing at Lee, and for other general duties. Air Experience flights are provided for personnel of the Air Engineering School at Lee, and also for CCF and Sea Cadets at this and other Naval Air Stations.

Despite their many years of service the Sea Devons and Sea Herons are still in immaculate condition, and the majority of maintenance (including engine changing) is carried out by civilian employees at Lee-on-Solent. No 781 is also responsible for maintenance on all RN Sea Devons and Sea Herons, which are used by Station Flights at Yeovilton, Culdrose and Prestwick. Major airframe modifications are undertaken at Sydenham, near Belfast.

The squadron has two Wessex HU 5s in service, and these are used for short range communication flights, ie to the many naval establishments in the Portsmouth area, to Battersea Heliport, and out to ships. These aircraft are known in the Squadron as

Peter F. Guiver in the air



781 Squadron's crest. The winged wheel, outer rope, '781' rectangle and motto band are gold. Wavy bands are blue and white.



Above rear view of Wessex HU 5 XT772. Dividing narrow gold band tapers to a point mid-way up the tail fin. 'Danger' warning triangle is red with white letters and arrow. Tail rotor has red and white tips. Other colours — top white, sides and under surfaces light green, 'ROYAL NAVY' and serial white. Below two of 781's Sea Herons photographed a few years ago when they had silver lower surfaces (Royal Navy).





Top Sea Devon XJ324. White top, dark blue cheat line and grey fuselage, flying surfaces and engine nacelles. 'ROYAL NAVY' dark blue, serial black. **Above** Sea Heron XR441. Colours as for Sea Devon, spinners blue (this varies from aircraft to aircraft). **Below** Wessex HU 5 XT772. Note White Ensign on nose. Fuel tank has white top, green sides and under surfaces.



can be jettisoned; wide steps below the starboard cabin door; and comfortable seating for up to eight passengers with heating, lighting, and soundproofing. A stewardess can also be carried, to serve refreshments in flight! Maintenance on the helicopters is carried out by RN personnel.

Fitted on the outside of the main cabin door on the Wessex is a mounting in which a small plate can be inserted. This plate, known as a 'flag', indicates the rank of any

Senior Officer who is a passenger at the time. At other times a plate showing the squadron crest is carried.

In spite of the recent Defence cuts, it is to be hoped that this interesting unit will continue for many years to come. I would like to sincerely thank the then Commanding Officer of No 781 Squadron, Lt Cdr D. M. Rouse, MBE, RN, and all the officers, ratings and civilians who made my recent visit so enjoyable. □



FIRSTLY, I MUST apologise for the lack of an article last month. I am afraid that the phantom 'flu ripped through my family like the plague, even I suffered. But the conversion I gave you in March should — at least I hope it did — have given you enough problems to carry you through to now; if any reader succeeded to his own satisfaction with that, or any other of the conversions in this series and has photographs of his or her work, would they please send them to me via *Airfix Magazine*, so that I can judge the success (if any) of these articles, and any constructive criticism from readers that will help me to improve will be gratefully received. I have made this appeal before — NOTHING! So I have no way of knowing how to improve my work for I cannot work within a vacuum. So, dear reader, I am asking for your help!

To this month's conversion which is again, I am afraid, of a wounded figure (yawn, yawn), in this case the Lancer corporal in the extreme right foreground of Lady Butler's painting. This poor unfortunate seems to have a nasty wound in a painful place (No! No! — the stomach!). Knowing what little I do of the rudimentary medical knowledge and skill of the middle of the 19th Century, and the conditions under which the operations were performed, without the use of anaesthetics, the survival of the patient seemed to depend on his own physical strength, the grace of God and the speed of the surgeon. After having survived the operation there was the likelihood of gangrene, etc, which seemed particularly prevalent at this time, so his chances with a stomach wound seem very slim when it is recorded that compound fractures necessitated amputation, the survival rate from which was only 75 per cent, so we may assume that the corporal numbered among those who 'died of wounds'; a platitude which covered up a lingering and agonising death from infection, etc, at this time.

The parts from the Airfix kits needed for this conversion: head, body, legs, and arms from the Hussar kit, the Czapska from the Polish Lancer, water bottle and haversack

AIRFIX magazine

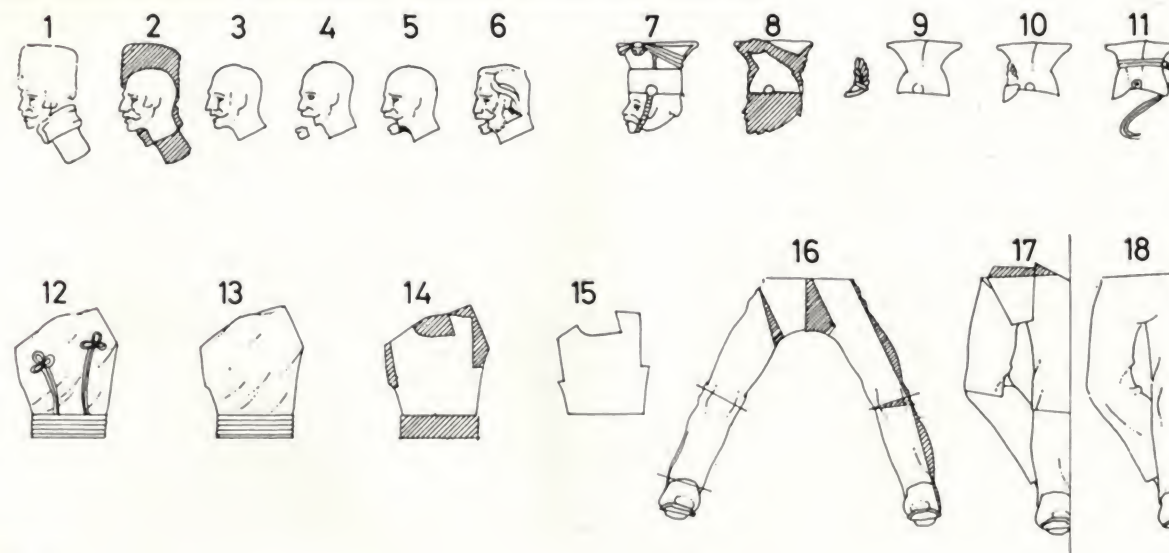


Wounded lancer figure by Sid Horton

from the usual sources and sword No 228 from Historex.

Take the head from the Hussar kit and generally clean up (Drawing 1), then carve

to the now familiar bald-headed shape and sand smooth. Drawing 2 shows the shaded area which has to be removed and Drawing 3 about what you should have when



finished. Now, using a new blade, cut carefully between the moustache and lower lip, then straight down from the corners of the mouth, thus freeing the lower jaw (chin) shown in Drawing 4. The lower jaw can then be cemented in place using Mek-Pak or a similar liquid adhesive, into any open position which you think suits, rather like a ventriloquist's doll, and any slight gaps filled with 'Green Stuff' which, when dry, is sanded smooth. The new open-mouthed position is shown in Drawing 5.

Hair and side whiskers (which effectively cover any slight gaps) are built up from Green Stuff, applying it in small amounts with a needle, and working it up into a hair-like texture while still wet. Finer work can be done when dry and the finished head is shown in Drawing 6.

Take the component parts of the Czapska from the Polish Lancer kit and assemble as shown in Drawing 7. When this has thoroughly dried, carefully, with a sharp blade, carve away all cords and raised decoration. Also, at this point, carve in the waist of the Czapska, so you have approximately what is shown in Drawing 9, then sand smooth. The lance caps worn in the Crimea had much narrower waists than the Napoleonic one represented in the Polish Lancer kit. A cut is now made, separating the peak from the sunburst plate. The two parts are then cemented in place into the new positions shown in Drawing 10. When this is dry, the sunburst plate has to be faired into the body of the Czapska, first by carving down its thickness and then filling any slight gaps with Green Stuff; remembering that there was a plate on the Crimean lance caps under the foul weather cover, so it should, I think, be represented in this model and be shown standing slightly proud. Cap lines are added, made from stretched sprue and cemented in place with Mek-Pak or a similar liquid adhesive. Note that the cap lines are

Left two views of the completed figure.

tied around the cap in a different way to those shown in the March issue. This seems from contemporary prints to be an alternative way of tying the cords around the foul weather cover. The head and lance cap can be placed on one side for the time being.

Take the body halves from the Hussar kit and cement together and allow to dry thoroughly. Then carve away all raised decoration and sand smooth. Note that the body has to be reversed front to back (so a new chest has to be carved and the back flattened) because we need the left shoulder to be raised instead of the right of the Hussar kit.

Carefully remove all the shaded areas shown in Drawing 14. A new neck location has to be carved, slightly to the left, to allow the head to hang. This will have to be done by 'eye', carving away small amounts and trying the fit until satisfied with the fit and position.

New arm location points also have to be cut; the left one set into the body, because most of the weight of the body is on it, pushing it forward and flattening it. The arms can only be made by eye. The left hand is clenched. This is simply done by cutting small wedges from the inside of the joints of the fingers and closing the fist. The body is shown in Drawing 10.

The legs I have used come from the Hussar kit and are cemented and allowed to dry thoroughly, preferably overnight, then the cuts shown in Drawing 16 are made and the shaded areas are carefully removed in stages, checking for fit. A lot of this work has to be done by eye.

The underside of the left leg is flattened. This is done by first cutting through the knee and removing the shaded triangle shown in Drawing 16. This should effectively remove the 'bow' of the rider's leg. When the straightened leg has been cemented together and allowed to dry, it is sanded flat to represent a trouser leg flattened by weight.

The right leg is raised and bent. This is done by carefully removing the shaded areas shown in Drawing 16 and cementing the component parts by eye, but as you start doing this it will become plain that there is more than one way of doing it. The foot has then to be re-positioned. The shaded area at the waist, shown in Drawing 17, has to be removed. Drawings 17 and 18 should be turned on their sides. Fill any slight gaps in the legs with Green Stuff and sand smooth.

The whole figure can now be assembled. Some slight carving and filling may still have to be done to make the figure fit.

The cross belts, haversack and water bottle straps are cut from the 5 thou plastic card supplied with these kits and cemented to the body with Mek-Pak. When dry, the 'artistic' folds and fall of these belts (as with the cap lines) are simply achieved by holding the figure in position on a temporary base, and pouring boiling water over the belts, etc, to soften them, then, teasing them into place with tweezers. They then keep their position when they harden.

Painting details as in previous articles on 17th Lancers. The only addition — the Corporal's stripes are yellow outlined in white. □

The Revenge fights again!

A historical naval mini-diorama built and described by Michael Andress

THE REVENGE, launched in 1577 at Chatham, was a typical Elizabethan galleon. 92 feet long in the keel, 110 feet long on the gun deck and with a beam of 32 feet, she carried 46 guns, 34 of them carriage guns and the other 12 swivel guns. She was a definite improvement on the earlier Tudor ship designs with better lines and lower castles fore and aft, and with good manoeuvrability. The *Revenge* was Drake's flagship in 1588 when the English fleet defeated the Spanish Armada.

In August 1591, under the command of Sir Richard Grenville, the *Revenge* was at Flores with many of her crew ashore recovering from scurvy when a Spanish fleet of 53 ships was seen approaching the anchorage. By the time the *Revenge* came out after picking up all her men, the Spanish ships were between her and the rest of the English squadron. Rather than retreat, Sir Richard gave the order to attack, despite the great odds against his ship. In the 15 hour long battle which ensued, two galleons and several smaller Spanish ships were sunk and some 2,000 Spaniards were killed before the *Revenge* surrendered. Sir Richard died three days later from wounds sustained during the battle and the *Revenge* sank soon after while being taken back to Spain as a prize. She had earned her place in British naval history, and many years later the battle was further commemorated by Alfred Lord Tennyson in his ballad, 'The Revenge'.

While scenic settings and dioramas have become increasingly popular recently, par-

ticularly with military enthusiasts, ship modellers seem to have largely ignored this form of presentation. This is perhaps because the traditional method of display for sailing ship models as full hull replicas on supporting stands is so well established or possibly because ship modellers feel that an excessive amount of space would be required for a diorama. This latter argument is certainly not valid if the Airfix Series 1 sailing ship models are used as can be seen from the mini diorama shown here. In fact even with the larger scale models of Series 7, 8 and 9 a diorama of this type could be constructed in an area for which most of us could find display space, and I built this small diorama partly to see if such a larger scale model would be a feasible project.

In designing the scene I allowed myself some artistic (or modelling!) licence, as I wanted to show the *Revenge* intact apart from a few holes in the sails from cannon ball and shot, while already one of the smaller Spanish ships is sinking. In fact the *Revenge* was fairly quickly involved in fighting at close quarters and was soon reduced to little more than a hulk.

For the base I cut a piece 5½ inches square of ½ inch thick chipboard. The small size was chosen not only for convenience but also to compress the scene to make it more interesting. If modelled exactly to scale the area represented would have to be larger and the ships further apart, making them appear more insignificant in relation

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AIRFIX magazine

AIRFIX NEW MODELS FILE

AIRBUS INDUSTRIE A 300B

The A 300B is the outcome of studies undertaken by Aerospatiale in France, Hawker Siddeley UK and Deutsche Airbus in West Germany. And it's Europe's answer to the continually expanding short and medium range, high-density airline routes which call for an economical, wide-bodied jet with a large passenger capacity. It can carry up to 290 passengers.

The programme was given the go-ahead in June 1969 with the formation of Airbus Industrie with Holland and Spain joining at a later date.

Production is split with Germany building the rear fuselage and fin; France building the cockpit and wing centre-section; U.K. the main wing box; Spain the the horizontal tail and some doors and Germany the wing control surfaces. The United States supply the engines which are assembled in France.

The plane entered service with Air France in 1974 and other customers include Lufthansa, Iberia, Air Siam and Denmark. Two production versions of

the Airbus are now being built: the B2 and B4—the latter being an extended-range development.

The Airfix Airbus is complete in every detail and comes with a set of Air France markings.

For up to date news and details of Airfix models get the Airfix magazine price 22p.

Also available are a set of detailed Airfix Books. These give the background information to such models as the HMS Victory, Cutty Sark, Mayflower, Spitfire, Messerschmitt Bf 109, P-51 Mustang and Hawker Hurricane.



Airbus Industrie A 300B
1/44 Scale Series 6.

New to the world's biggest range
of construction kits.

Technical Details	
Date of origin:	1974
Engines:	Two 51,000lb thrust General Electric CF 6-50 turbofan.
Top Speed:	506 kts.
Service Ceiling:	25,000ft.
Range:	1,300 nautical miles
Wing Span:	147ft. 1in.
Length:	175ft. 9ins.
Height:	54ft. 3ins.

**UK, FRANCE, GERMANY, HOLLAND AND SPAIN
HAVE GOT IT TOGETHER.**





Continued from page 576

to the expanse of sea. Selective compression of this sort is a useful technique in diorama modelling (it is also both necessary and desirable in railway modelling) as it often gives a more effective representation of the action taking place and the atmosphere of a scene than would be provided by an exact scale model.

The sea was modelled with a coating of Polyfilla over the chipboard base. As it was applied it was shaped with an old table knife to the desired contours and after it had set hard sandpaper was used to remove any blobs of filler or unrealistic irregularities. I deliberately kept the 'sea' surface fairly smooth as I felt it would be easy to overdo the effect in this small scale, creating relatively mountainous waves. However, now that the model is finished I do feel that a better appearance would have resulted with a rather rougher sea. This is again an example of a situation where an effect must be exaggerated to create an impression rather than modelling exactly to scale.

The next step was the construction of the *Revenge* herself. As the Airfix kit is for a full hull model it must be modified to a waterline version. I found the simplest way to do this was as follows. First of all I placed one hull side (Part 1) flat on my work surface (that is with the inside downwards) and with a razor saw cut through the hull side at the waterline. I then cemented this upper hull side piece to the intact second hull side (Part 2) and left them aside until firmly fixed. Then, using the cut already made as a guide for the saw, I cut through the other half of

one at either side, but only one is present on the kit deck. As the amount of space available here is rather limited in this small scale model I decided not to attempt to fit a second ladder, though you could do so if you wish, perhaps building it up from the two ladders cut away from the forecastle.

As I mentioned earlier, the various decks are closed off by railings from each other. The kit includes the side railings, as part of the hull sides, but omits the others, presumably for simplicity and economy. I fabricated the extra railings required from strips of plastic card. Cut a strip to the appropriate length and height and then drill a series of holes at intervals along it with a fine drill in a pin vice. Then open out each hole to a rectangular shape using the point of a square needle file to give the appearance of railings. As each set of railings is completed it can be fixed in position across the deck. The railing across the front of the poop deck should be short enough to leave a gap at the side for the ladder (both sides if you have included the second ladder).

At this stage I painted the model, using matt brown. With skill the modeller could duplicate the diagonal pattern of decorations on the upper parts of the sides as shown in the coloured illustration on the front of the instruction sheet, but I settled for a simpler scheme with just strips of a single colour, red, green, blue instead of the patterns, which is still much more effective than the overall brown suggested in the instructions. I used white paint applied with a fine paintbrush to give the appearance of panels on the stern and on the galleries.

For the modeller who wishes to carry out more detailed and accurate painting a good guide is included in the instructions of the Airfix Series 8 larger scale *Revenge* model kit. Study of the larger model will also help the modeller when it comes to the addition of extra details to the small model. The simplest way to produce the white trim on sides and railings is to scrape the paint away with the edge of a modelling knife blade.

The masts were next painted and fitted as in the instructions. In preparation for battle

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AIRFIX magazine

AIRFIX NEW MODELS FILE

NEW SERIES 1/32 SCALE TANKS

Undoubtedly one of the more easily recognised tanks of the Second World War, the Crusader III appeared in the summer of 1942. It was regarded as a respected opponent by the German tank crews and enjoyed considerable success in the skirmishing and hit and run roles.

Design of the 'heavy cruiser' Crusader series was started in 1938 by the War Office's Mechanisation Board in conjunction with Nuffield Mechanisation and Aero Limited.

Crusaders provided the hard-pressed Eighth Army with a tank capable of matching the Africa Korps' Panzer III's and early MKIV's in firepower, if not in armour protection, during the crucial battle of El Alamein in October 1942.

Meanwhile, at the other end of North Africa, the 6th Armoured Division, equipped with Crusader III's, landed in Tunisia as part of the Allied First Army in Operation Torch.

In tank versus tank battles the hull-down position was much favoured and often easy to use due to the Crusader's low profile in the undulating terrain

common to many areas of North Africa.

A wide choice of markings is provided with this new Airfix Crusader III including Regimental insignia and tank squadron transfers for the North African Campaigns.

For up to date news and details of Airfix models, get the Airfix magazine price 22p.

Also available are a set of detailed Airfix books. These give background information to such models as the HMS Victory, Cutty Sark, Mayflower, Spitfire, Messerschmitt Bf109, P-51 Mustang and Hawker Hurricane.



Crusader III Tank 1/32 Scale. Series 8.

New to the world's biggest range of construction kits.

Technical Details

Date of origin: 1942

Engine: 340 h.p. Nuffield Liberty engine

Top Speed: 27 m.p.h.

Range: 100 miles

Weight: 19.75 tons

Height: 7ft 4ins.

Overall length (including fuel tank): 20ft 8ins.

Basic Hull Width: 8ft 8ins.

Armaments 6 pdr gun
Besa machine gun.

THE GUIDING LIGHT OF OPERATION TORCH.



nets were used to cover the waist between the forecabin and the quarterdeck. These made it more difficult for boarders to reach the waist and also kept broken spars and other gear from falling onto the deck. To model this I fitted a piece of plastic Micro-rod running the length of the waist at each side of the main mast and on top of these two pieces I cemented a strip of thin plastic card. I used gauze for the netting and painted it with black poster paint before cutting to size. The netting fits over the central beam and extends down to the inside of the bulwarks on each side and is cut away to fit around the mast. The larger of the two ship's boats is fixed on top of the netting just in front of the mainmast.

Before adding the sails paint the spars brown and tone down the whiteness of the sails with a thin wash of black poster paint. I made a few holes of varying sizes in the lower sails using the point of a needle file to represent holes due to cannon ball and shot. Black thread was used to rig the model. I hung up a length of the thread with a weight at the end to keep it straight then rubbed white glue onto the thread and allowed it to stay hanging up until the adhesive dried. This stiffens the thread, making it much easier to handle when fixing.

I followed the simplified rigging plan suggested in the kit instructions but there is no reason why more complete rigging should not be fitted, again using the Series 8 model as a guide. The final touches are the addition of the anchor and the flags, and of gun port covers cut from thin plastic card.

There isn't a Spanish ship in the series but a perfectly satisfactory representation can be achieved by using another *Revenge* kit. The sides and deck were cut down to give the appearance of a sinking ship with only the aft part and stern still above the water, as can be seen in the pictures. The Bonaventure mast (Part 11) and Mizzenmast (Part 10) are each cut and the lower part of each is fixed to the deck. The upper parts are then fitted giving the appearance of broken and split masts.

The hull was then fixed to the sea base and the Mainmast (Part 10) was cut as with the other masts. The bottom of the mast was trimmed off so that it could be fixed into the base in the appropriate position (the hull having been cut across at the forward end of the quarterdeck). Broken rigging was modelled from black thread and paper tissue was used for the torn sails. The two ship's boats and a length of broken spar are 'floating' nearby.

After fixing the *Revenge* in place on the base the plaster is painted using poster, acrylic or modeller's paint. Blue, green, white and black paint should be brushed on at random and blended until you are satisfied with the effect. The final touch is the addition of a little white to represent the wave crests and the broken water around the moving *Revenge* and in her wake.

There is great scope for mini-dioramas of this type. Reference to books such as *Great Sea Battles* by Oliver Warner will provide further ideas.

Artillery museum re-opened to public

A report on some of the exhibits at the Rotunda, Woolwich, by Terry Gander

BY THE TIME these words are published, the Museum of Artillery in the Rotunda at Woolwich will have been re-opened to the public after a lengthy period of closure due to very necessary building repairs. So once again this priceless collection of artillery-related items will be open to the gaze of the military enthusiast and scholar and a large and important gap in the sum of military knowledge available to those resident in the United Kingdom will have been filled. It must go without saying that the Rotunda collection is one of the most important and interesting in the country.

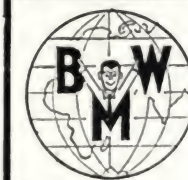
The Rotunda is situated at Woolwich, to the south-east of London, and gains its name from the structure in which the collection is housed. This structure has quite a history of its own for it was one of six large tents erected in Carlton House Gardens in 1814 to house the London meeting of the Allied Sovereigns after the premature end of the Napoleonic wars. In 1820 this tent was

re-erected at Woolwich to house the collection of military items assembled by Lt Gen Sir William Congreve and continued by his son Colonel Sir William Congreve (of rocket fame). It was covered in lead to provide a more permanent structure and to this day its tall conical shape is one of the more prominent features of the Woolwich skyline. Over the years this structure has gradually deteriorated and the recent lengthy repair session has meant that the collection has been closed to the public.

It is difficult to know where to start when describing the Rotunda collection. Not all the items are under cover for in a compound outside the Rotunda itself there is a grouping of weapons and other items that in itself would be worth a visit. This group consists of a variety of Second World War weapons such as a 3.7-inch AA gun, a

Text continued on page 583

The old and the new. Right a breech-loading Peterara. Below 17 pdr anti-tank and 3.7-inch anti-aircraft guns of Second World War vintage.



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POCHER 1/8

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Prix de France 1907

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Rolls Royce Phantom £85.00
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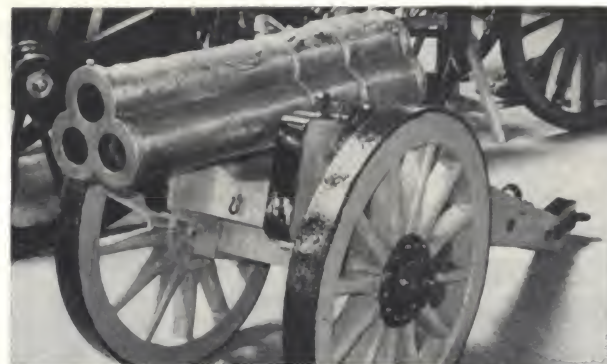
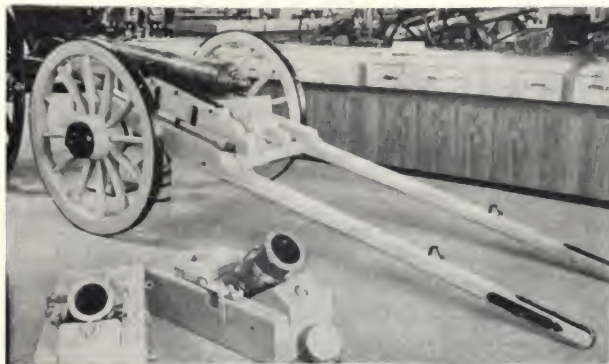
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Artillery through the ages. **Top left** a Minion gun on a Galloper carriage dating from 1685. **Top right** an odd triple-bore gun captured from the French at Malplaquet in 1709. **Above left** a brass 9 pdr SBML still on its original 1748 carriage. **Above right** typical of the many trophy guns to be seen is this Indian bronze gun captured at Moodkee in 1845. **Below left** the 'Napoleon' gun presented to Queen Victoria in 1858. Known as a Canon Obusier, it was for many years kept at Windsor Castle. **Below right** beautiful model of a 6-inch howitzer made in the 1920s. **Bottom left** German 7.5 cm Pak 40 anti-tank gun. **Bottom right** Italian Cannone da 47/32 modello 35.



Continued from page 580

Bofors 40 mm AA gun, 17 and 25 pdr guns, a 12 pdr naval gun, a 5.5-inch gun and a 155 mm self-propelled howitzer on a Sherman chassis. One particular item of interest is an example of the huge 32 pdr anti-tank gun produced by the British at the end of the Second World War.

As well as these items there are many other pieces of ordnance from earlier eras and also a collection of limbers, carriages and carts ranging over many centuries. Many of these items of ordnance are simply laid out in rows on the ground and close examination will reveal many that are not only interesting in historical terms but also as items of curiosity — an example is one cannon with a flat flared muzzle which appears to have been an early attempt at a fortress defence weapon to give a wide spread of anti-personnel projectiles.

But it is inside the Rotunda itself that the real value of the collection can be realised. In well-lit and well laid-out surroundings can be seen some of the finest examples of historical ordnance to be seen anywhere.

On show here is one of the oldest guns known to have survived the years. Somehow it missed the attentions of my camera, but it is a 15-inch wrought iron bombard dating from the early 14th Century. Situated around it are other examples from that era including a most interesting breech-loading gun known as a Peterara which dates from the time of Edward IV.

Passing round the exhibits one can see other examples of early gun construction before passing on to examples of cast ordnance. This era covers a wide range of guns and included are examples of captured and trophy guns from around the old British Empire but especially India. Then come early examples of rifled weapons followed by breech loaders, guns used in the First World War and finally a few more of the guns of the Second World War.

Interspersed between all these various sections are cases and cases of other exhibits containing many beautiful models of guns, carriages, and their associated vehicles and accessories. Many of these models are really fine examples of the modeler's art and date back many years in some cases. Some depict very odd experimental designs of gun and carriage. As well as the models there are cases devoted to such things as early war rockets (as already mentioned, Congreve was an early collector of many of the items in the museum, and indeed made many of the early models). An ammunition display is dominated by the massive 36-inch shell intended for the Mallet Mortar designed for use in the Crimea, although it never got there — this mortar can be seen not far from the entrance.

There is so much to see at the Rotunda that only a few highlights can be singled out for special mention. One that must be mentioned is the French field piece presented to Queen Victoria by Napoleon III in 1858. This piece was presented complete with limbers

Continued on page 584

Wargaming with a difference . . .

Tank Battles in Miniature 2

A Wargamers' Guide to the Russian Campaign, 1941-1945

by Bruce Quarrie



'Extremely comprehensive' is how Martin Windrow describes Bruce Quarrie's new book. Following the same format as Donald Featherstone's earlier title in the series on the Western Desert Campaign, (£2.80 net, £3.03 by post) it combines a concise but detailed account of the actual campaign with descriptions of the tanks, guns, aircraft and organisation of the opposing forces, and numerous suggestions as to how these can be reproduced in miniature on the tabletop. The contents include chapters on tank and anti-tank fire, terrain and climate, partisans, armoured trains and artillery support.

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A6/75

Continued from page 583

and spare carriage, etc., and is a very fine example of a gun of the Napoleonic and Crimean period. It is complete down to the last details of tools and ammunition, all exactly as when they were first produced.

For lovers of the exotic a Burmese trophy gun depicting a dragon with the mouth as the muzzle will be one of the more colourful highlights of a visit. This ornate weapon was captured at Mandalay in 1885.

Passing on to a later period, one can see the Boer War Wolf gun — an odd piece of excellent design which was produced in Mafeking during the famous siege. Near this home-made device can be seen the 'screw guns' of Kipling fame. Also nearby are 13 and 18 pdr guns which were used at Royal funerals, both of them in magnificent condition.

Another good example of a First World War piece is a 4.5-inch howitzer with a French '75' nearby. Not far away can be seen the famous Nery gun — a 13 pdr which was one of the guns that took part in the action in 1914 that resulted in a classic artillery legend and the award of three Victoria Crosses.

Passing on to the Second World War, the range is small but good. A 2 pdr anti-tank gun can be seen next to its successor, a 6 pdr, and both are in excellent condition. The same can be said of two 3.7-inch howitzers, one in its original mountain form and the other converted for mechanical traction. One of the best turned-out guns in the whole collection is the last operational 25 pdr. As an example of sheer bull it stands alone.

Recent arrivals to the Rotunda can be seen to one side of the building in the shape of an Italian Cannone da 47/32 modello 35 anti-tank/pack/infantry gun, and two German anti-tank guns. One is a 3.7 cm Pak 35/36 and the other a 7.5 cm Pak 40 — both are in rather poor condition but are substantially complete.

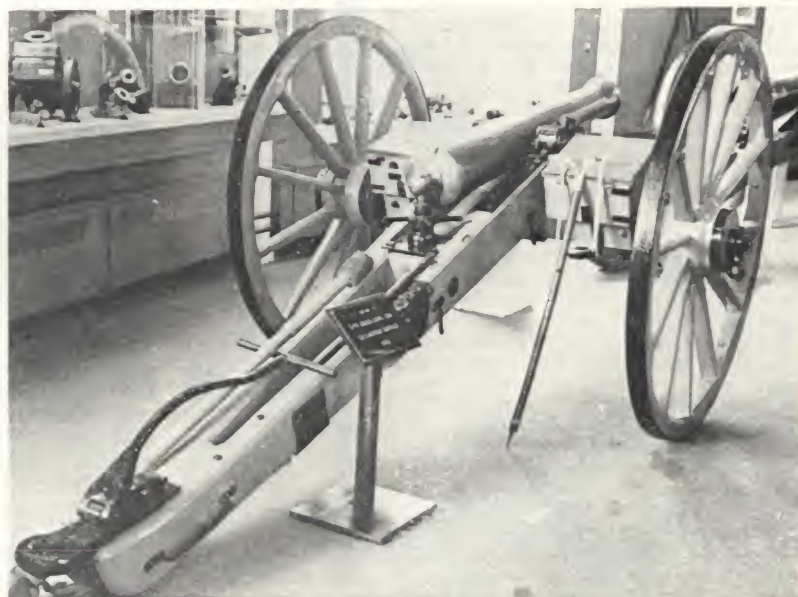
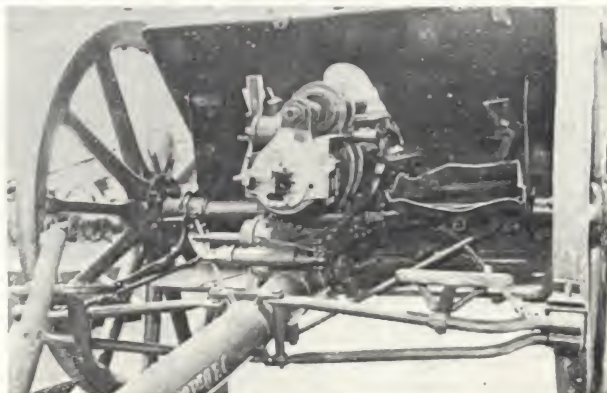
Back inside the Rotunda, one of my personal highlights is the exhibit known as the Experimental Table. This shows a wide range of breech mechanisms, rifling systems and early attempts at muzzle braking of recoil. Not yet ready at the time of my visit was the small-arms section which contains a wide range of pistols, shoulder arms and edged weapons as well as some very fine examples of Gatling, Gardner and Maxim machine-guns.

With so much to see, potential visitors should plan for the best part of a day to cover the collection properly. The Rotunda is not far from Woolwich Arsenal BR station but is rather awkward to give directions for, so ask at the station on arrival. Entrance is free. A small bookstall sells a range of postcards and guide books including the primer *The Story of the Gun* by Lt A. W. Wilson which at only 25p is one of the best books on the subject available anywhere. Photography inside the museum is not permitted without permission from the Curator.

The Museum of Artillery is very much a going concern. Unlike so many institutions it is not resting on its present laurels and has plans to expand. Plans are afoot to



Above 40 mm Bofors gun. Right the 13 pdr Nery Gun. Below a 6 pdr SBML of 1856.



place many of the outside exhibits under cover and to generally add to the collection. One thing for the future is the addition of one of the two 9.2-inch coastal defence

guns still installed at Gibraltar and other items are scheduled. But many will be content just to see that the Rotunda is open once more, and long may it remain so. □

AIRFIX magazine

The last Mustang — modelling the P-51H

1:72 scale project using Airfix and vac-formed parts by Alan W. Hall



The basic RAREplanes kit of the P-51H. All necessary parts are included but there is no instruction sheet.



Scoring round the edges of the parts with a sharp knife before snapping them away from the sheet plastic.



A large sheet of medium grade wet and dry paper plus liberal amounts of water are used to rub down the parts before assembly.



Fuselage interior fittings come from the new Airfix Mustang kit. Note that a false floor has had to be added in the cockpit.

THE LAST VERSION of the famous Mustang to see squadron service was the P-51H. This interesting aircraft had a number of subtle changes from the well-known 'D' model, and although it was not used in large numbers, did make a name for itself as the fastest Mustang variant to see service.

Known as the 'light-weight' Mustang, the P-51H employed an entirely new low-drag wing shape, a taller fin and rudder, revised scoop intake, more bulbous cockpit canopy, simplified undercarriage and had an increase in overall length. In other words an almost entirely different aircraft though retaining the basic Mustang profile.

The design was based on the XP-51F and G models and had a V-1650-9 engine delivering a wartime emergency rating, with water injection, of 2,218 hp at 10,200 feet. Its top speed was in the region of 490 mph.

The first P-51H-1-NA flew on February 3 1945, being followed by a further 19 -1-NAs, 280 -5-NAs and 255 -10-NAs machines. The first aircraft off the production line did not incorporate the taller fin and rudder and only those listed were produced. V-J Day resulted in the cancellation of 1,445 P-51H Mustangs but the type did go into service with a number of Fighter Groups in the Pacific area before the last stages of the war against Japan. One example was delivered to the RAF and was evaluated at Boscombe Down.

Modelling the P-51H is not an easy job. Experts on Mustang genealogy will tell you that none of the manufacturers has produced a really accurate Mustang in the 'D' series yet, so the chances of getting an 'H' model out of one of them is limited. On the other hand RAREplanes have recently released a limited production version in which the complete fuselage and new canopy are supplied. I thought I would try my hand at this as to convert an existing model would have been asking for trouble and as far as I could see the vacuform kit was as accurate as I could hope for. Added to this I had a number of the first Mustang kits released by Airfix which had been raided for other spare parts from time to time and included in the remaining parts were a number of wings which looked as if they could be adapted.

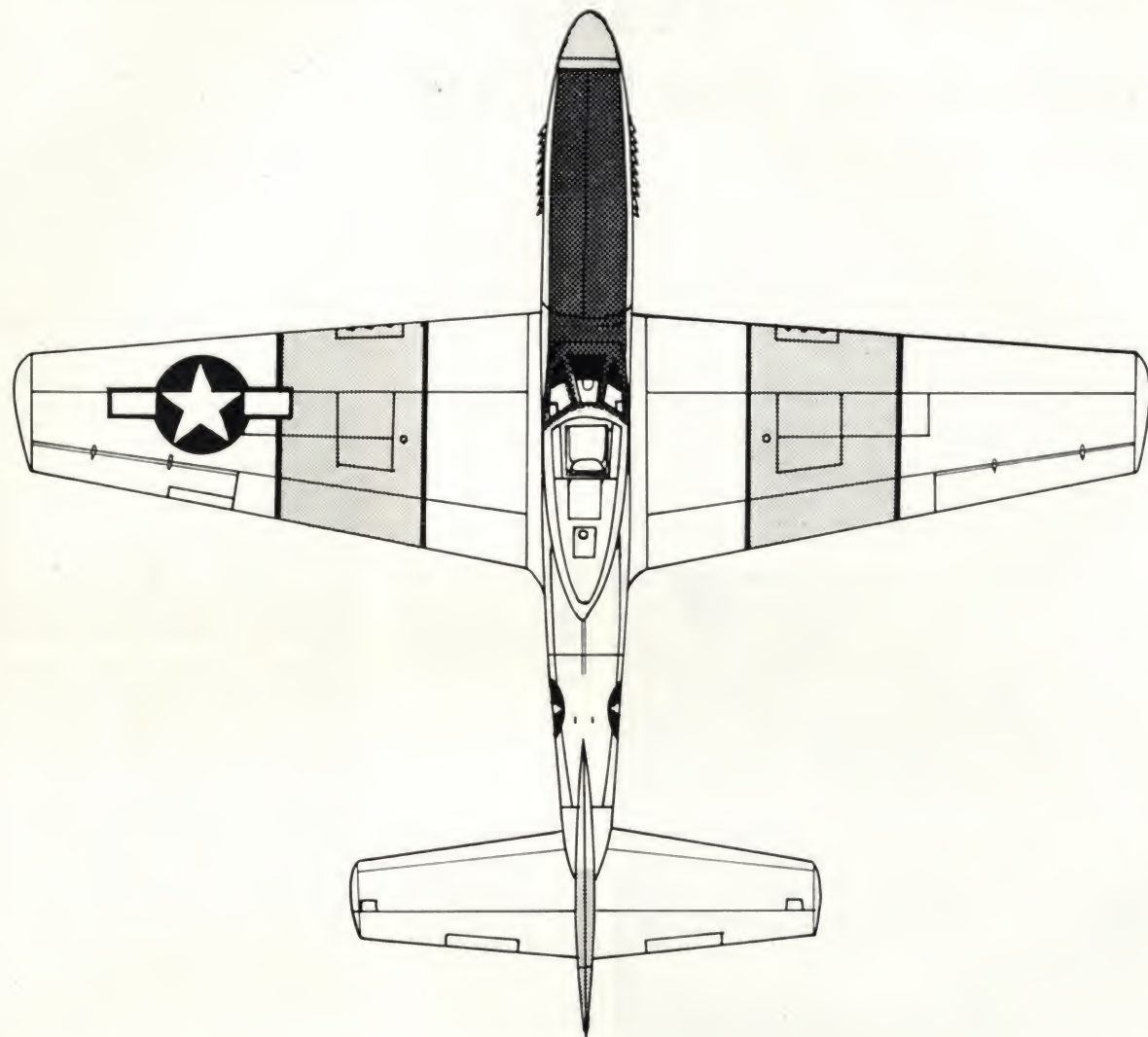
By combining these and a few parts from the new Airfix Mustang I was able to produce a really worthwhile model.

Stage 1

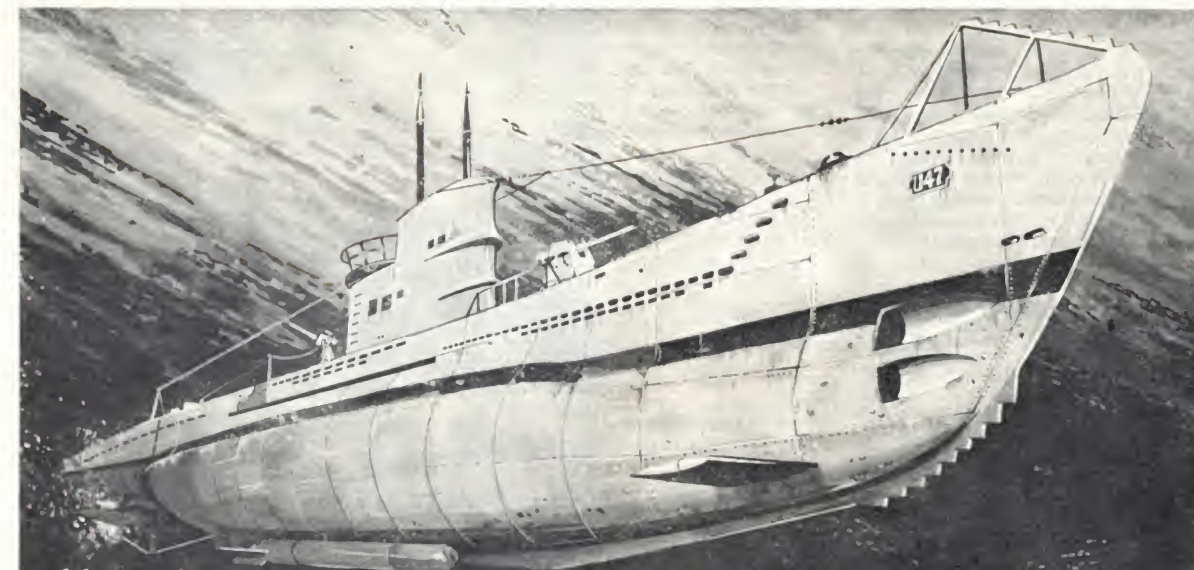
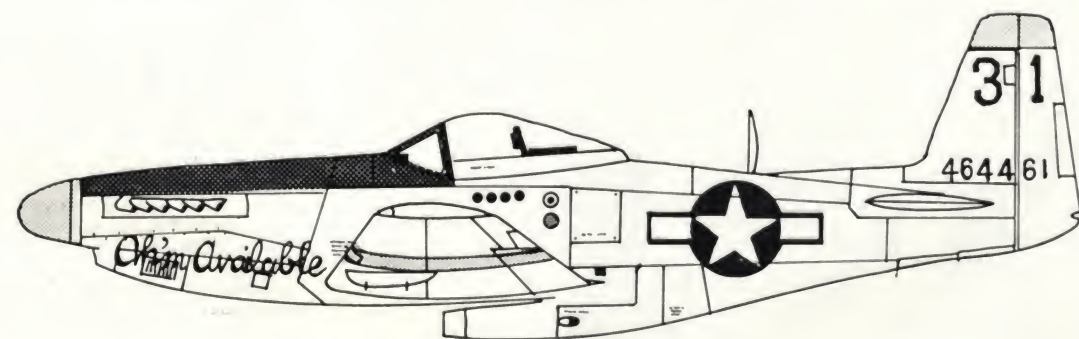
In the hope that this article might convert a few more enthusiasts to the art of making vacuform models I have split up the construction methods into various stages. The RAREplanes kit does not have an instruction sheet with it so perhaps my words might assist those who cannot resist the temptation of getting one. The actual work on the model is not difficult and there are several parts that can be cannibalised from the two other Mustang models to make it easier.

In the first instance the fuselage halves have to be cut from the background plastic, and to do this I used a sharp knife and

Text continued on page 588



Plan and side views of P-51H 464461 of the 62nd Fighter Squadron, 1:72 scale. Natural metal overall with yellow spinner, fin and rudder tip, broad yellow bands across wings outlined in black. Anti-dazzle panel black.



"Achtung. One Battleship sunk, one damaged...and we're through!"

In September 1940, U-Boats had torpedoed and sunk the Royal Navy's aircraft carrier "Courageous". Eager to retain the propaganda initiative, Kommodore Doenitz — then head of the U-Boat fleet — planned a daring raid on the RN base at Scapa Flow.



Now U-47 had to run for her life. Scapa Flow roused, patrol boats and destroyers scurried in search of the intruder. Laboriously — U-47 wriggled back through the narrows. The tiny submarine eluded the searchers and escaped. One of the most daring exploits of the war had been completed successfully — and each member of the U-47's 44-strong crew received a second class Iron Cross. Prien himself was awarded the first class medal.

Prien saw blue, yellow and red flames leap skywards. He guessed he'd hit a magazine. A wall of water shot up, and Prien himself described it as "though the sea suddenly stood on end". The Royal Oak sank within 13 minutes, taking with her 24 officers and 809 enlisted men.



Five months later, on March 8th, 1941, U-47 was surprised by the destroyer HMS Wolverine while tracking a convoy, and sunk with all hands.

Further reading: U-BOAT COMMANDER by Günther Prien. Tandem.

Revell's 1/125th scale U-47 is full of stunning detail.

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Continued from page 585

scored round the edges, keeping as close as possible to the base line. The fuselage snaps away easily from the rest of the plastic and there is no need to cut right through before getting the fuselage free. It is best to cut only the sections immediately needed from the base sheet of plastic and remove the others when work on them is about to start. The chance of small parts getting lost is therefore eliminated.

Stage 2

By using a large sheet of medium grade wet and dry paper flat on the bench and together with a liberal quantity of water I rubbed down the two fuselage halves until I had a 'flat' on which to cement the two halves together. A circular rubbing action is advised as I have found excessive finger pressure will give a curved section to what should end up as a flat surface. Constant checking of one fuselage side against the other is necessary.

Stage 3

Once satisfied that the fuselage will fit correctly it is necessary to detail the inside of the fuselage as one would with any normal injection moulded kit. Here the new Airfix Mustang kit came in handy as the cockpit detail of this is extremely good. I used the seat, instrument panel and cockpit floor together with the assorted 'black boxes' that appear behind the pilot. It is necessary to make a false cockpit floor, however, as the P-51H is wider in fuselage cross-section than the 'D' model. All parts were glued in place using liquid cement as I find this is far more suitable for vacuform kit making than the tube variety. It also has the advantage of drying out quicker and can therefore speed production.

Stage 4

Immediately before the two fuselage halves were joined I painted the cockpit detail and started to cut out the intakes in the nose and the scoop under the fuselage. Only the first preliminary cuts were made as it is better to do this work with a file. To get the file in, however, it is necessary to have a small hole cut in the right place first and this is all that is necessary at this stage.

The two fuselage halves are now joined. Hold them in the correct position with a piece of Sellotape loosely wrapped round the cross-section and let the liquid cement run down the crack. It is best to leave the fuselage on one side, now, to ensure that the joint has time to dry out, and concentrate on the wings.

Stage 5

As already mentioned, I used the wings from an old Airfix Mustang kit, and I am sure that there are a number of modellers who, like me, have wondered what to do with the spare kits they have been hoarding. Perhaps they will have an eventual value in the fullness of time but at the moment they are only taking up space and as far as I was concerned I only needed one complete one for posterity.

Fixing the wings in position. Tube cement on both surfaces was used and allowed to go tacky before the two parts were joined.



Body putty is used to fill the wing and tail-plane joints above and below. Much of the raised panel line detail has been rubbed down. Note that the wing leading edge is now straight along its entire length.



Detailing such as wing tanks, tailwheel, prop and radio aerials are completed before adding the main undercarriage.



The underside of the model before the wheel wells were modified. Note the use of filler around the air scoop and the revised wing leading edge.



Unlike the new model, the one I was working on had sufficient plastic in the forepart of the wing root to allow the characteristic angled plan-form shape of the P-51D to be cut off and the straight leading edge of the 'H' model provided. The knife removed most of the surplus plastic and then I finished off the rough working with a coarse file. The leading wing edge was now very thin and when attached to the model needed some

building up with body putty. The problem came around the wheel well but there should not be too much difficulty here as this needs reshaping in any case because of the different design of the undercarriage doors.

Much of the detail on the wing was rubbed down with fine grade wet and dry paper to get rid of the ugly raised panel detail on the original and it was found



Painting. Note that an airbrush is used and that the anti-dazzle panel and cockpit have been masked.



Two views of the completed model.



necessary to get my finest bladed file in between the protruding gun muzzles to clean up surplus plastic. The tab which slots into the fuselage on the ejection moulded kit was also removed because it is easier to fix the wing to fuselage on a vacuform kit this way.

Stage 6

Attention was once more turned to the fuselage at this point. This needs cleaning up and flat surfaces filed on the nose where it joins the propeller and on the wing and tailplane joints.

Attention is also paid to the pre-opened radiators. Here a fine file is used to carefully shape the intakes correctly. I finished off this exercise with a folded piece of very worn, fine, wet and dry paper as the slightest mistake can lead to disaster if a knife or rough abrasive is used.

The cockpit canopy was also attached at this stage as I thought it better to preserve the detail of the cockpit interior by doing so. Otherwise water from the rubbing down and excessive handling could have marked the paintwork. The canopy, I found, fitted very well. The clear plastic was heated in a bowl of hot water to start with before attempting to cut round its extremities with a knife. I always do this as the heating makes the brittle plastic less likely to crack when being cut and also takes the knife more readily.

Stage 7

The mating of wings, and tail unit now takes precedence and this will have to be done carefully as there are now no locating stubs to help fix the dihedral angle. To achieve the end result I used a little tube cement applied to both surfaces very carefully and after allowing it to dry until it became very tacky I quickly stuck both parts together and then corrected the dihedral angle.

When both sides are complete the model is placed on the bench with a dab of Plasticine under each wing tip and a slight weight on top of the fuselage to achieve and hold the dihedral angle. Once again it is necessary to ensure that the joint dries out thoroughly before going on.

The tailplane was tackled in a similar manner after some of the raised panel lines were rubbed down and the locating stub removed. Once dry both wings and tail unit will need the application of a liberal amount of body filler. This is most important on the wing leading edge and also on the trailing edge where I found that the Airfix kit wings and the RAREplanes fuselage did not agree entirely about similar dimensions. A small trailing edge wing fillet can be built up ready to be rubbed down once the body putty has dried.

Stage 8

With the body putty on hand I decided to deal with the vacuform prop and make a start on the undercarriage. The rear side of the vacuformed plastic is packed with body putty behind the propeller and cut out and rubbed down when the material has dried out. The propeller from the Airfix kit can be used on the model but this is not strictly

accurate as the spinner and blades differ slightly.

The file was initially used to cut down the body putty on the back of the propeller blades and then various grades of wet and dry paper until the right cross-section had been achieved. The job takes time and it is best to take a close look at the kit prop and use this as a guide.

The undercarriage wheels are cut from the sheet plastic and rubbed down. This is a fiddly job and needs to be done carefully. The wheels are small and if you've got large fingers like I have even more care is necessary. One false move and you will get the angle all wrong. Undercarriage legs came from the kit and the undercarriage doors were on the RAREplanes moulding. It was necessary to stick a small piece of plastic over the locating holes for the legs in the wheel wells and re-drill the hole. One could have used putty to keep the legs in position but I preferred the strength given by a fresh start.

The tailwheel needed some support inside the fuselage and here I poked a small piece of balsa into the opening, cemented this in place, covered it with a small dab of body putty and when dry drilled a small hole to take the wheel leg.

Twin ailerons are cut from thin plastic card to go into small holes opened up by a heated pin and enlarged by the tip of a file behind the cockpit canopy.

Everything should now be ready for painting.

Painting

The basic colour scheme for the P-51H is simple as it merely consists of natural metal with a black anti-dazzle panel. Not many colour schemes were found when looking for reference and most of the recognised books on the Mustang tactfully leave the 'H' model out.

I did, however, find pictures in William Green's *Warplanes of the Second World War*, Vol 4 and Hylton Lacy's *American Fighters of WW2*, Vol 1. The PSL publication *Classic Aircraft No 3: P-51 Mustang* also has two good illustrations.

Out of these, the most colourful is 'Ah'm Available' of the 62nd FS. The name on the nose has to be hand-painted which is very difficult but apart from that there were no problems. The kit decals were used for the national insignia and aircraft code and serial markings came from Letraset and from the spares box.

The P-51H Mustang was an interesting and fairly simple construction job for a vacuform model and one which I am sure the hard-case Mustang enthusiast will want. It makes up into an accurate representation and is possibly as good as any of the main manufacturers' injection moulded samples. Panel line detail on the vacuform parts comes well up to the usual RAREplanes standard.

I was told that there are only a few mouldings of this model available and of course there's no instruction sheet as with other RAREplanes kits. Examples can be obtained by writing direct to RAREplanes, 18 Hillford Place, Earlsfield, Surrey. Price is 50p plus 7p postage.

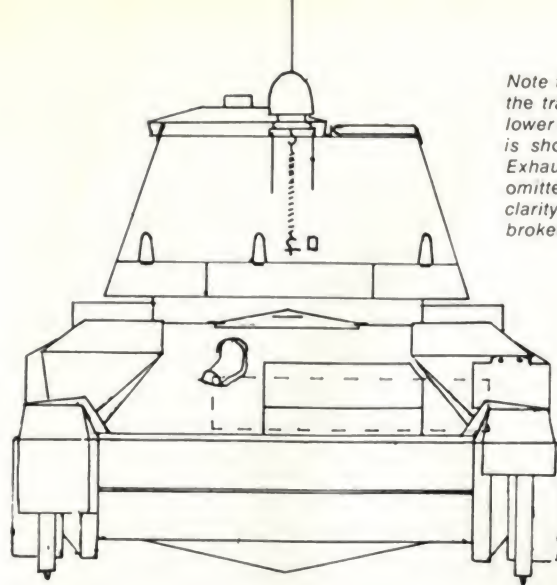
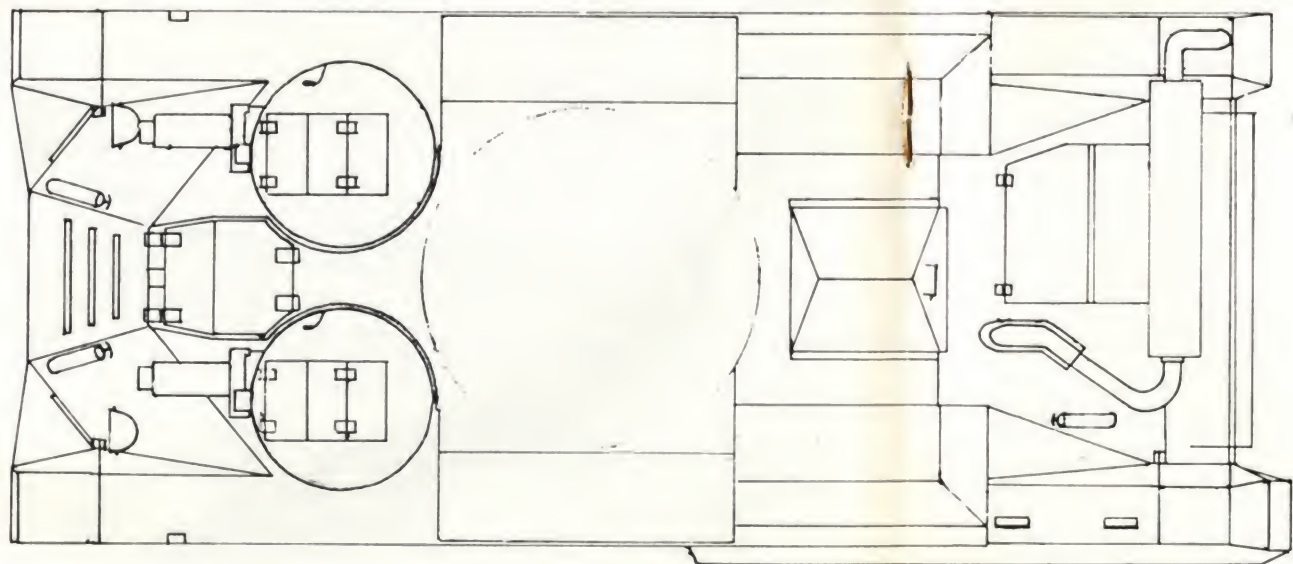
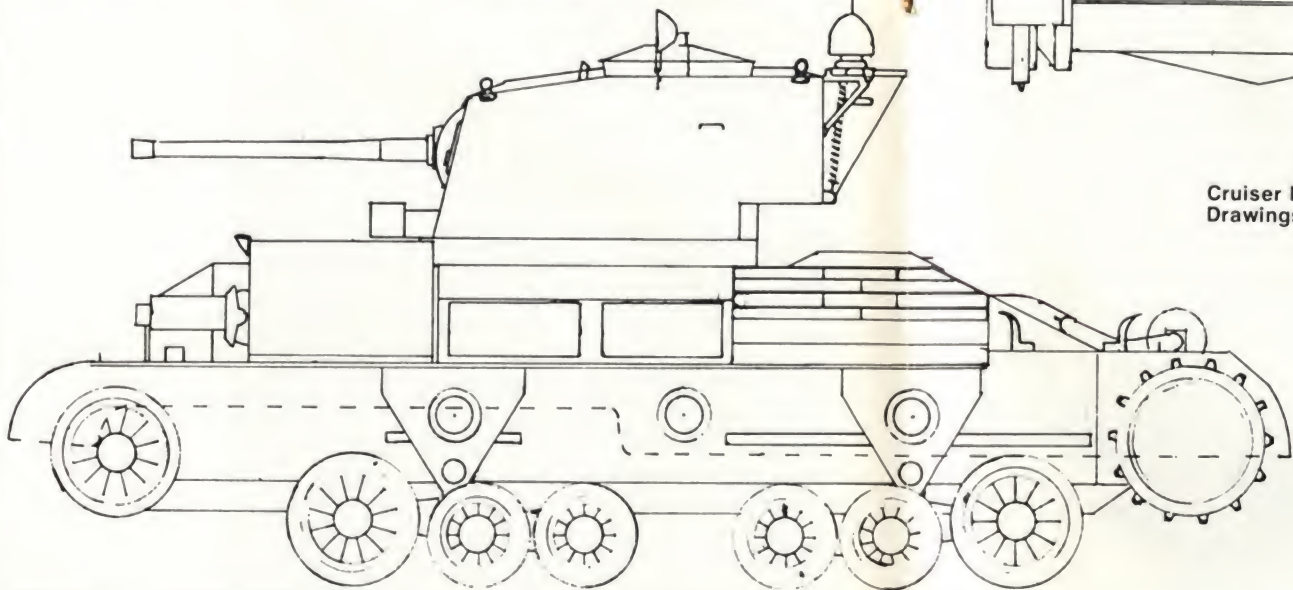
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Cruiser tank Mk 1 in 1:35 scale

Another advanced scratch-building project for AFV fans from **Jeremy Broughton**

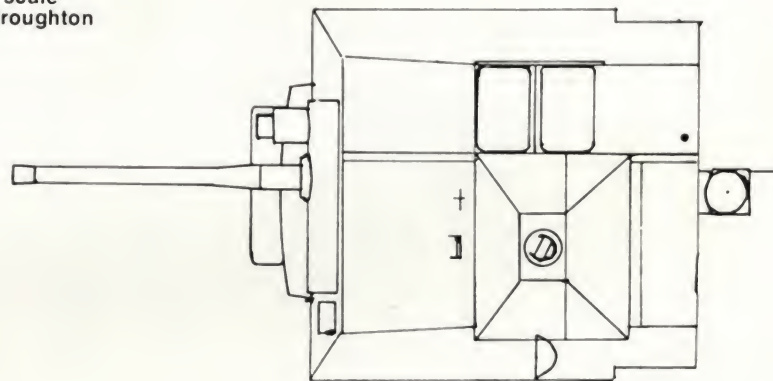
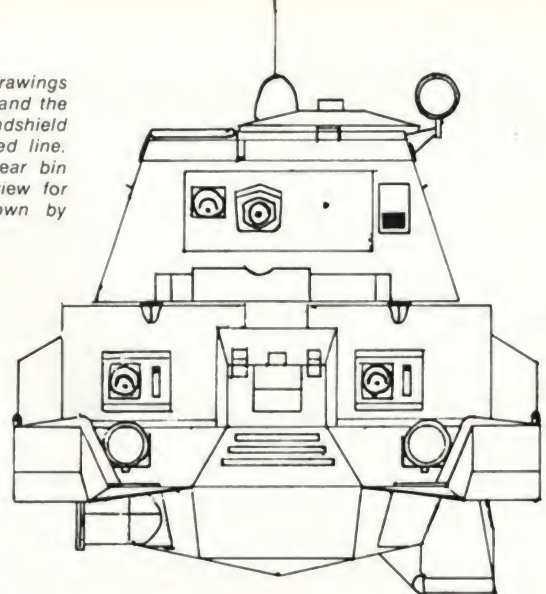
THE TANK THAT is the subject of this month's article is the British Cruiser Tank Mark I, often referred to as the A9 after its experimental designation, which was introduced in 1937 as a replacement for the old Medium Tanks Marks I and II which had been produced in 1923-8.

A total of 125 vehicles, in addition to one prototype, were built, of which the majority were gun tanks armed with the new 2 pdr tank gun, introduced to replace the 3 pdr used in tanks during the inter-war period. Some, known as the Cruiser Tank Mark I CS, were armed with the 3.7-inch howitzer



Cruiser Mk 1 (A9) 1:35 scale
Drawings by Jeremy Broughton

Note that on these drawings the track is omitted and the lower edge of the sandshield is shown by a dotted line. Exhaust pipe and rear bin omitted from rear view for clarity, silencer shown by broken line.



and used in the close support role.

The A9s served with 1st Armoured Division in France in 1940, and subsequently in the early desert campaigns, although these tanks were phased out earlier than the A13s they were still, as shown by the accompanying photograph, serving in late 1941.

Although not as successful as the Mark III and IV described last month, the Mark I is particularly interesting as the first 'modern' tank to enter service in the British Army before the Second World War, and introduced several noteworthy innovations, including the Vickers tank periscope and powered traverse for the main turret. Moreover, the triple turrets and cutaway bows give this Cruiser a uniquely naval appearance!

In fact, the plans and photographs show the hull is genuinely boat-shaped, to allow space for the mounting of the Vickers' slow-motion suspension and this, together with the unusual form of the hull front arranged to give the greatest field of fire for the machine-guns in the forward turrets, presents a greater challenge than the sim-

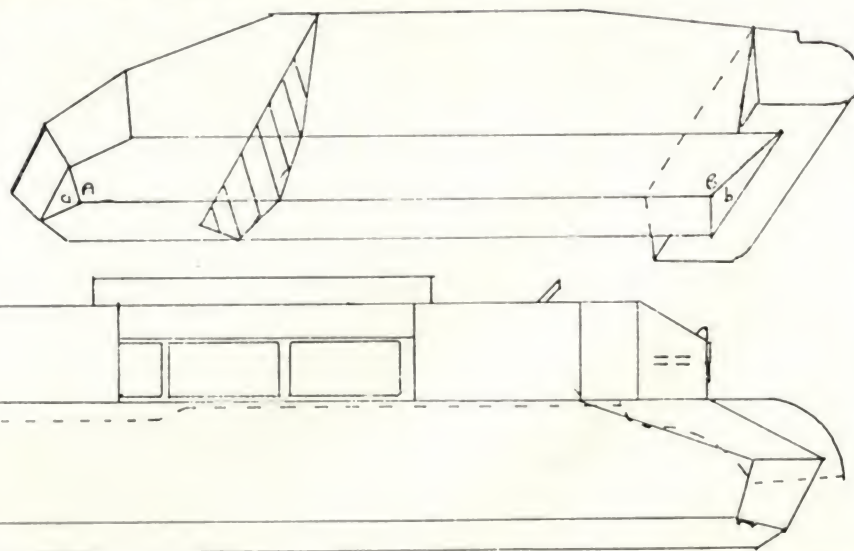
ple box shape of the Mark IV: it is here that we will begin.

The first piece to cut, from 40 thou sheet, is a rectangle 96 x 71 mm extended at the forward edge to provide the base of the driver's cab: two rings of 40 thou sheet, external diameter 24½ mm, are mounted on the upper surface to provide the plinths of the forward turrets and the forward edges are bevelled to accept the glacia plate at a later stage. Two strips, supported internally by gussets to make sure that they are vertical, are cemented across the upper surface to form the front and rear of the stowage boxes; as the hull top-plate, 40 thou thick, will fit across the top of these strips they must be made correspondingly narrower. The sides and sloping tops of the storage boxes are cut from 40 thou sheet and cemented in place to give a rigid structure.

The top-plate is now cut out; it is a rectangle with a 'swan-necked' projection extending as far as the rear driver's hatch to form the roof of the passage that connects the driving compartment with the fighting



Top a pair of Cruiser tanks Mk 1 in the Western Desert in September 1941. It can be seen that no sandshield is fitted on the right-hand side. T.7199, the subject of this model, is in the foreground (IWM). **Above** view of completed model. More photos and plans for the suspension and camouflage scheme will appear next month. **Right** sketch of lower hull, not to scale. **Below** 1:35 scale plan of right-hand hull side with sub-turret omitted and lower edge of track guard indicated by broken line.



compartment. Remember to make allowance for the curved walls — from 10 thou sheet — of the passage and check the shape of the roof against the position of the turret plinths: if they do not match the mistake will soon be glaringly obvious!

If you want to leave the turret hatches open and include some interior detail a disc of 37 mm diameter must be cut out corresponding to the turret ring; also a rectangle 49 mm wide must be removed from the main plate between the transverse walls.

The top-plate can now be cemented in place, followed by the curved walls and then the flat walls of the driver's cab. If the various hatches are to be closed assembly of the cab can be quickly completed, but if the interior is to be visible some provision must first be made for the driver. I simply painted the area of the horizontal plate within the cab black and cemented in place the head-and-shoulders cut from a suitable figure, but if you are more ambitious and wish to have the upper hatches open then a hole must be cut in the horizontal plate inside the walls of the cab.

The MG turrets can now be built: they are identical and are basically plain cylinders, although to form the channel around the edge of the upper plate this piece should be made from two concentric discs, the lower fractionally larger than the upper. It is simple to add a shallow cylinder to the bottom of the turret to engage in the plinth so that the turret may traverse: this could be avoided by cementing the turrets directly to their plinths, but a little extra trouble here will make painting much simpler later. The MG mountings are made from plastic sheet and the armoured water jackets for the VMGs from sprue: these are not quite circular. The rivets can be added using an outer skin of 5 thou sheet, as described last month.

Small holes are now drilled in the ends of the armoured jackets, from which the gun muzzles should appear. However, the two sub-turrets were rarely manned in action and the guns were consequently removed, so the muzzles can be omitted. Small arches must be added over the holes — presumably to keep the rain out!

The engine decking will now be constructed before adding the lower hull and completing the hull front. Two matching quadrilaterals are cut out to fit vertically inside the engine louvres; as they will carry the horizontal upper plate and the sloping rear plate they must be accurately shaped. These pieces are mounted on the upper face of the main horizontal plate to butt against the rear face of the stowage boxes, 19 mm in from either edge of the plate and held vertically by supports. The upper and rear plates of the engine decking are now added: note that the former should fit flush with the hull top-plate. A vertical plate, 14 x 50 mm, is mounted on the rear edge of the sloping edge, and later the transmission housing will be attached to this.

The boat-shaped lower hull is made up separately from the upper hull as so far completed in order that the vulnerable long

Continued on page 594

Airfix Guides on ironclads

No 7

Warship Modelling

Peter Hodges

If you've always wanted to do warship modelling but haven't known where to start, this is the book for you! The author takes a basic Airfix 1:600 scale warship — *HMS Daring* — and leads the reader step-by-step through its assembly, detailing and painting. Other chapters describe conversion techniques, including two step-by-step projects, converting full hull to waterline models, making seascape dioramas, warship flags and many other useful tips on this much neglected topic.



No 8

German Tanks of World War 2

Terry Gander & Peter Chamberlain

These two Airfix contributors provide a guide to every German-designed and built tank to see action in the last war. Suitable for the younger reader wanting a basic introduction, or the serious enthusiast needing a concise reference, it begins by outlining German armoured theory, and continues with individual sections on subjects ranging from the tiny PzKpfw I to the massive 'King Tiger'. Each is accompanied by data tables, 1:76 scale drawings and photos. Camouflage and insignia notes are included.

Both 64 pages, 8½" x 5½", fully illus. June 9. £1.20 net each (£1.33 by post).

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butt joints can be internally reinforced; the shape of the lower hull is complex, and is illustrated in the accompanying sketch. First three transverse bulkheads are cut from 20 thou sheet: make allowance for the 40 thou horizontal plate on which the upper hull has been built, also the lower sideplates which will be of 20 thou.

The two pairs of sideplates are now cut out and their edges bevelled; the upper pair will extend as far back as the rear vertical plate. The lower pair are cemented together along the edge marked AB, with the three bulkheads then added. Triangular pieces are added in the shallow Vees a and b formed at either end and the joints are reinforced with bevelled strips of 40 thou sheet.

The upper hull sides are now cemented in place: the bevelled upper edges of these pieces must be flush with the upper edges of the bulkheads, as this lower hull must fit accurately on to the underside of the upper hull assembly. The new joints are reinforced, and strips cemented on the underside of the horizontal plate to locate the lower hull: the two halves of the hull are now joined together.

The six plates that complete the hull front are added next: first cut out the central glaci plate from 40 thou sheet and cement it in place supported by a bracket cut to the correct angle: the upper edge should be slightly below the main horizontal plate to allow for the 5 mm riveted 'skin' that will be added later.

The side glaci plates are now cut out: it will be necessary to experiment a little to get the correct angles, but as the upper and lower edges of these pieces are parallel this is not difficult. The three lower plates are then added, and only when the lower hull is complete and the cement thoroughly set should the excess plastic at the various joints be filed away.

The outer coverings of the six plates are now formed from 5 mm sheet and attached carefully: the upper pieces should be fixed in place first allowing a slight overhang which is removed with a sharp knife after the lower pieces have been added. The cylindrical projections on which the idler wheels are mounted are now shaped from sprue and firmly cemented to the lower sideplates, their axes being aligned.

To complete the basic, but undoubtedly complex, hull shape, two triangular pieces are required between the rear engine cover and the lower hull sides. The transmission housing is formed by mounting six identical D-shaped formers at equal spacing across the rear plate and forming a rectangle of 10 thou sheet over them to give the desired half cylinder: the outer faces are then extended forward as shown in the sketch of the lower hull. Two composite discs, 2 1/4 mm thick and of 16 mm diameter, are cemented over the ends.

The A9s that fought in the Desert had an open bin mounted over the transmission, and this can now be added from 10 thou sheet. This bin carries a rack containing six petrol/water cans, which should be added during the final detailing: plans were included in last month's article.

Continued next month



Part 7 — Wapiti: maid of all work

THE WESTLAND WAPITI was classed as a general purpose, not an army co-operation aircraft; therefore an overall coverage of this aircraft type in general is not appropriate to this series. But Wapitis formed the complete equipment of some army co-operation squadrons, and others on bombing squadrons were specifically fitted out for army co-operation duties, so that some Wapitis in particular are appropriate to this series.

Produced in its hundreds, mainly as a DH9A bomber replacement, and using up some DH9A parts, the Wapiti equipped Nos 5, 11, 20, 27, 28, 31 and 60 Squadrons in India and Nos 30, 55 and 84 in the Middle East. Strangely, the Wapiti did not equip a single first-line squadron in the United Kingdom, but it was the mainstay of the Auxiliary Air Force squadrons Nos 501-502, 600-605 and 607-608.

General Wapiti finish

The Wapiti front fuselage was metal encased back to the rear of the pilot's cockpit, where lacing holes showed the demarcation line for the rest of the aircraft — fabric-covered tautened with standard aluminium dope. Serial numbers in black 8-inch characters appeared on the rear fuselage and rudder, and in 30-inch characters under the wings.

Entering service in the late twenties, and even remaining in service in the early years of the Second World War, the Wapiti went through the mandatory markings changes — the August to October 1930 rudder stripe change from blue, white and red from the rudder post, to the reverse order, and the August 1934 change when rudder striping was discontinued and wing roundels were reduced in size so as not to overlap onto ailerons.



A characteristic of Wapiti finish was the fuselage top colouring, for which no documentation can be found. Logically it would be green as a restful colour for the pilot and gunner, but one observer remembers it as chocolate brown. Some photographs show this feature in various shades, so it is possible it varied.

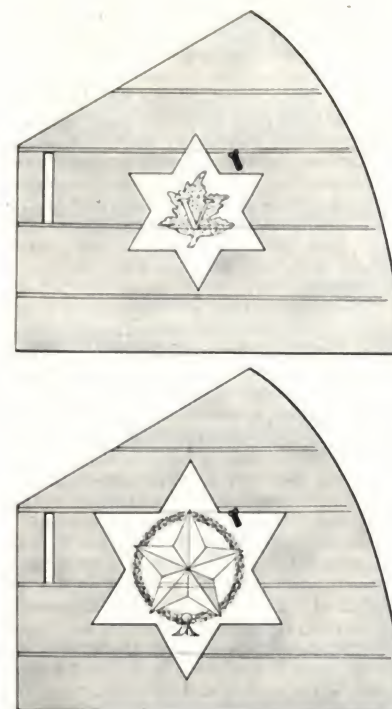
Army co-op Wapitis

It was in India that the Wapiti operated as a true army co-operation aircraft and Nos 5, 20, 28 and 31 Squadrons equipped with the Wapiti IIA were officially classed as army co-operation squadrons. The significance of this to the modeller is that most of these Wapitis were fitted with message pick-up hooks, and could also be fitted with underwing bomb racks like the bomber versions.

There was also a small, but significant, marking difference. It has been related earlier in *Bombing Colours* and *Fighting Colours* that in February 1936 a standard outline frame was introduced within which the unit badge could be displayed. There was an arrowhead frame for fighter squadrons, grenade for bomber squadrons, and a six-pointed star for general reconnaissance and army co-operation squadrons.

Bomber squadrons operating indepen-

Wapiti standard factory finish. It will be seen that the front fuselage is covered in ribbed (for strengthening) aluminium plate and aft of this it is fabric covered. Serials on the rear fuselage were given in Westland style with two stops; in India Command the standard serial display was decreed the same size but with a hyphen between letter and number, and no stops (Westland Aircraft).



Markings on aluminium doped fins of Nos 5 (top) and 31 (lower) Wapiti (AC) Squadrons 1936-39 (Peter G. Cooksley).

dently needed an army co-operation element, and in Nos 27 and 60 Bomber Squadrons some Wapitis were set aside for army co-operation duty indicated by 'A' or 'AC' added to their serial number.

There was not co-operation with RAF armoured cars in India as in Iraq. In the latter territory the RAF were in control, but India was under the Army, with aircraft playing a secondary role. Wapitis co-operated with Army units, including some of the first light tank units in India.

Wapiti army co-op squadrons

No 5 Squadron first received Wapitis in May 1931 and served at the Indian stations of Quetta, Risalpur, Dardoni, Chaklala, Arawali and Miranshah. Wapitis were used until mid-1940 when the squadron role changed. The Wapitis had red fuselage decking and the unit's distinguishing marking was a thick black band aft of the fuselage roundel as illustrated. Their Wapitis were used intensively and both J9494 and J9495 had flown over 1200 hours when they crashed in April 1935. An individual identity letter was marked on the side of the nose, examples being: 'B' J9504, 'C' J9508, 'D' K1294, 'G' J9482.

The unit badge was a maple leaf, chosen as symbolic of their association with the Canadian Corps in the First World War when they operated RE8s on army co-operation work. When the standard frames were introduced in 1936 the leaf was displayed as a star frame on the fin, with a



Above army co-operation Wapiti of No 5 Squadron over Chaklala in 1937, complete with message pick-up hook and underwing stores carriers. This aircraft has a red fuselage decking, black fuselage band and individual letter which was standard 5 Squadron marking of the period. This aircraft was possibly the last Wapiti in use when it was struck off on November 30 1943 (Sqn Ldr S. G. E. Payne).

white Roman 'V'; but after the badge was officially approved in 1937 the 'V' was omitted. Wapitis were retained until mid-1940.

No 20 Squadron had some of the first

Hand-fuelling a 31 Squadron Wapiti at Jacobabad. This view shows the lines of the Bristol Jupiter engine and the store carrier under the wing (MoD H794 via Air Marshal L. D. Mavor).



Wapiti IIAs to be sent overseas. J9384 and J9386 were sent from the Westland Factory at Yeovil to the Ascot Packing Depot in late 1928 and shipped to Karachi in early 1929. Both were disposed of as having deteriorated in 1935 after 1321 and 1404 flying hours respectively. Wapitis were used by the squadron until the end of 1935 when Audaxes were received.

No 28 Squadron used Wapitis in India from September 1931, individual aircraft being J9723, J9733, K1261, K1279, K1280, K1283 and K1295. Replacement Audaxes were received in 1936, the same year that fin frame markings were introduced.

No 31 Squadron used Wapitis from 1931 to 1939, including J9387-9389 and J9399-9401, all of which completed over a thousand flying hours with the squadron. The unit marking was two black bars, around the fuselage about 12 inches thick, one aft of the roundel and the other just forward of the tailplane. From mid-1936 the fins were marked as shown. Individual identity letters were not marked on squadron aircraft.



Above Wapitis with No 27 Bomber Squadron, fitted out for army co-operation work as denoted by the annotation 'AC' after the serial number on the fuselage (MoD H729). Below Wapiti used in camouflage experiments using what appears to be a very effective scheme. All markings were obliterated and the serial number appeared in white two-inch characters on the rear fuselage.



Wapiti production and allocation to RAF

Serial	Mk	Remarks including main allocation
J8495	Proto	First flown 1927, Hendon New Types Park No 12 in 1927.
J9078-91902	I	Mainly wooden construction. J9084 float-plane.
J9237-9247	II	Composite wood/metal construction. J9247 Mk IIA prototype.
J9380-9403	IIA	Standard Indian version. Shipped to Karachi early 1929.
J9404-9414	IIA	Standard Iraq service version. Shipped to Hinaidi, Spring 1929.
J9481-9514	IIA	Shipped overseas throughout 1929.
J9592-9636	IIA	Bomber versions for Iraq and home AAF squadrons 1929.
J9708-9724	IIA	Shipped to Karachi 1930 for squadrons in India.
J9725-9759	V	Shipped to India 1930. Mk V had larger fuselage.
J9835-9854	IIA	Shipped to Hinaidi for bomber squadrons in Iraq.
J9855-9871	IIA	Direct issue to Auxiliary Air Force bomber squadrons, UK.
K1122-1135	IIA	Mainly to bomber squadrons in Iraq.
K1136-1157	IIA	Direct issue to Auxiliary Air Force bomber squadrons, UK.
K1254-1309	IIA	Shipped to India for army co-op and bomber squadrons.
K1316-1379	IIA	Direct issue to AAF. 33 converted to Wallace.
K1380-1415	IIA	Mainly shipped to Iraq for bomber squadrons.
K2236-2251	VI	Trainer version for Auxiliary Air Force squadrons.
K2252-2271	IIA	Home service version.
K2272-2288	IIA	Various allocations including conversion to Wallace.
K2289-2305	IIA	Shipped to Karachi in 1932 for squadrons in India.
K2306-2320	IIA	All converted to Wallace.
Note:	IIA	IIA was all-metal framework version.

MAY MARKS THE 25th anniversary of the threatened invasion of Britain by Nazi Germany; a threat which Britain was strangely ill-prepared to meet. Britain had planned to rely on the strength of the Royal Navy to defend her shores but within two months of the outbreak of war the Navy was widely dispersed, the Home Fleet's strategic base at Scapa Flow had been rendered unsafe by U-boat attacks, and the recce system for the North Sea had been proved inadequate: Britain had temporarily lost control of the North Sea and invasion had become a possibility.

To deal with this contingency the Julius Caesar plan was set up, which assumed that any sea-borne force would need a major port for supplies and reinforcements and that such a port would first be seized by airborne troops. British strategists believed that if the airborne attack could be defeated the seaborne landing must fail, and therefore the RAF was given priority in the rearmament programme: the safety of Britain now depended mainly on air supremacy.

In the spring of 1940 the Chiefs of Staff warned that, with little or no warning, 5,000 paratroopers could be dropped on the airfields of the south east, thus temporarily paralyzing Britain's air defences, and could be quickly reinforced by troop-carrying aircraft, while at the same time 20,000 troops with AFVs could be rushed across the North Sea to descend on the east coast. Neither were the seaward defences of estuaries and harbours proof against fast, light surface craft, while the fixed defences were decidedly weak. They concluded that in favourable weather — or if the Luftwaffe smothered air reconnaissance — the enemy stood a good chance of getting ashore without effective interference.

On May 25 the Chiefs of Staff reported that 'should the enemy succeed in establishing a force, with its vehicles, firmly ashore, the Army in the United Kingdom, which is very short of equipment, had not the offensive power to drive it out.'

The situation deteriorated with amazing rapidity. On the 26th the BEF began their evacuation from Dunkirk; two days later Belgium capitulated. By June 10 Norway had been abandoned and by the 21st France had surrendered. German troops could now be launched against any part of the UK from ports anywhere from the Arctic Circle to the coast of Spain.

After Dunkirk the British were as dazed by Blitzkrieg as the rest of Europe, most of the lessons of the Polish and French campaigns had not yet been fully grasped, and Germany still held the trump card — the terror weapon of surprise tactics. At the end of May General Ironside was appointed to command Home Forces, forces which were imposing on paper but were seriously under-trained and short of equipment, especially transport. (2,472 guns, 63,879 vehicles, 20,548 motorcycles and over 500,000 tons of ammunition and stores had been left in France.)

This lack of mobility could prevent Ironside from concentrating troops in time to stop the Germans establishing beachheads and landing their panzer divisions. Should that happen Britain was lost, for the Home

AIRFIX magazine

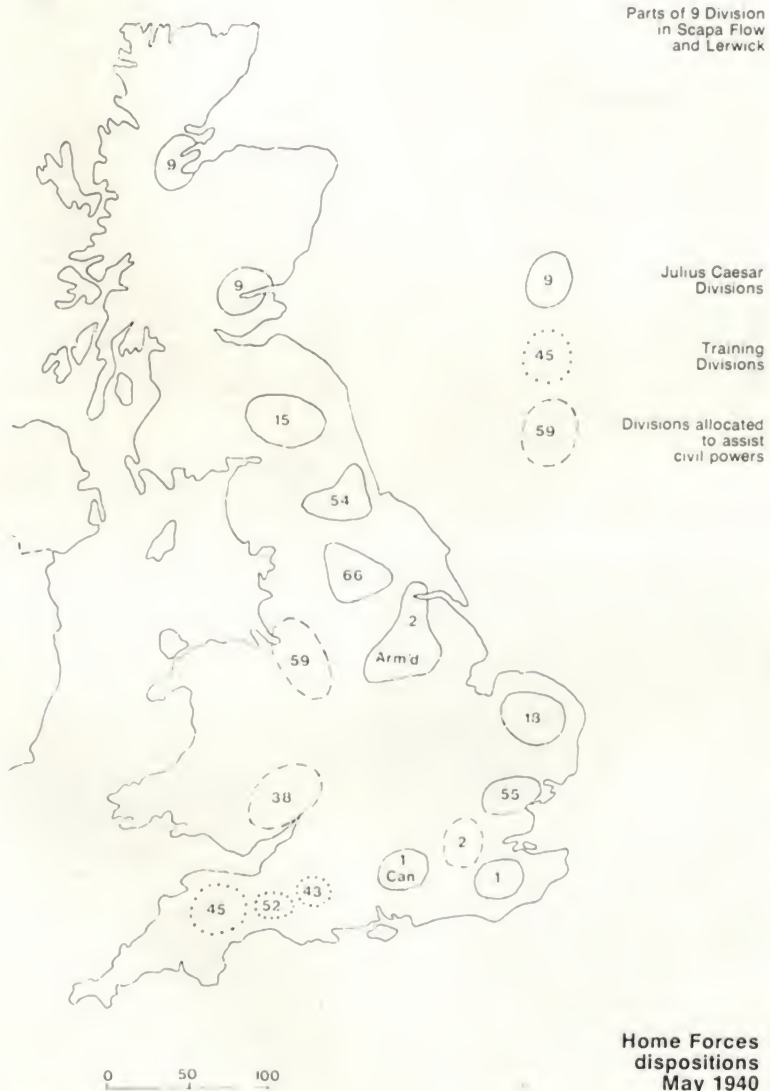
Operation Sealion — the non-invasion

First in a short series of articles useful for modellers and wargamers from Terry Wise

Forces were not capable of, nor indeed trained for, dealing with armoured thrusts such as had already conquered most of Western Europe.

Therefore in early June Ironside drew up a plan which relied on defence in depth, with his small, mobile reserve held close to the heart of the country. Under this plan the long coastline was held by only a thin line of

troops, designed to delay the enemy before falling back on a series of stop-lines, intended to further delay the enemy, while the mobile reserve (in June-July the 43rd, 52nd and 1st Canadian Infantry Divisions) concentrated for the counter-attack. This reserve, strategically distributed, should be able to concentrate to meet the enemy's main thrust within 12 to 24 hours.



The final defence was to be a great belt of A/T obstacles, the GHQ Line, to protect London and the industrial Midlands. The plan was criticised for allowing much of Britain to be overrun before a counterattack was launched, but it was the best plan possible at that time and in the second half of June 150,000 civilians, all the earth-moving equipment in the UK, and all available troops, were put to work erecting the new defences.

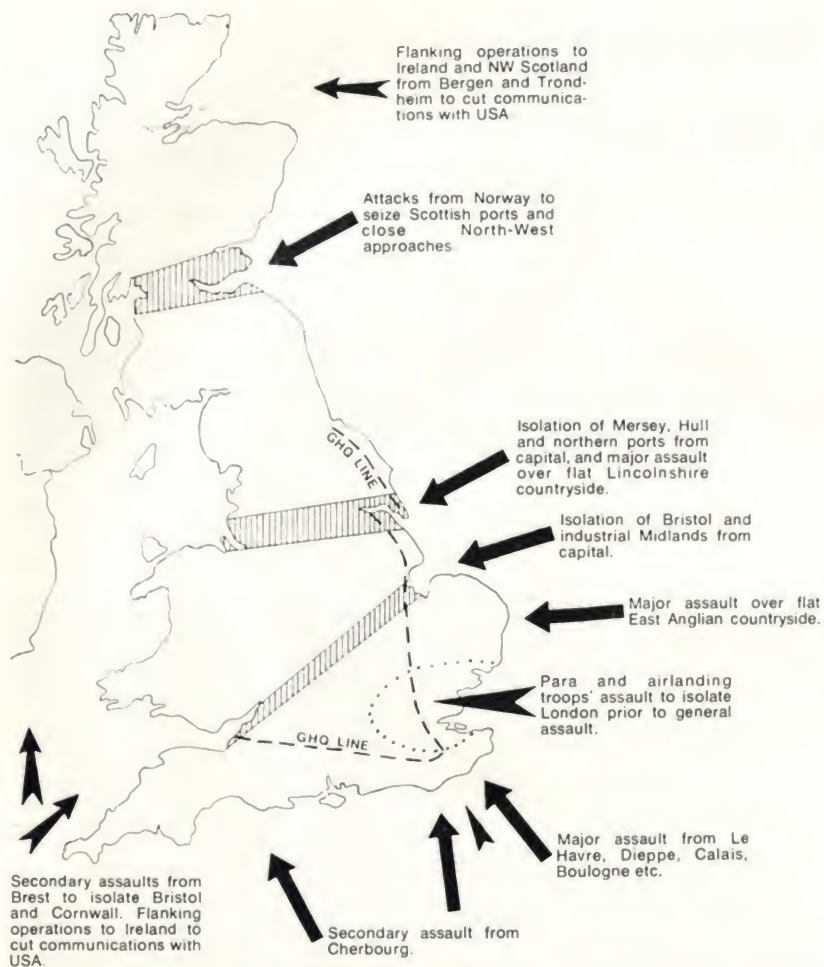
On July 20 Sir Alan Brooke was appointed to command Home Forces and he proposed a plan to utilise the increased mobility and striking power of the Army. Accordingly in early August the reserve was moved forward to positions north west and south of London and the stop-lines were limited to points of all round defence at important road junctions and communication centres, troops from abandoned stop-lines being concentrated to form mobile local reserves. Ironside had placed most of the field artillery to cover likely landing places and kept his few A/T guns in reserve; Brooke moved the latter forward to cover the beaches and returned the field artillery to a mobile rôle.

This plan for offensive action was more popular with Government and people but production of armaments had not yet made good the deficiencies in the Army's equipment and as late as September 13 Brooke reported only half his divisions were fit for the mobile operations necessary for the success of his plan. There was a more serious error in both Ironside's and Brooke's plans; for both had followed 'Julius Caesar' in anticipating invasion from Dutch and German ports and placing the main defences on the east coast where the long, open beaches were ideal for a landing, and the flat country of East Anglia and Lincolnshire ideal for panzers.

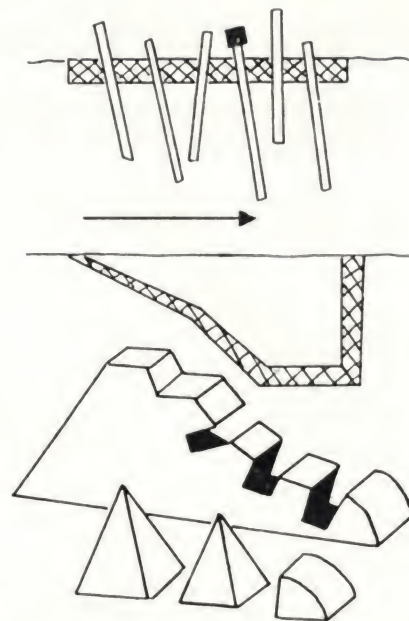
In mid-July Intelligence had estimated that 25,000 troops might sail from Channel and Bay of Biscay ports to attack the south coast; and 10,000 from Norwegian ports to attack Scotland; but for the east coast no less than 62,000 were estimated, sailing from Belgian, Dutch and German ports. Because of this only five divisions guarded southern England from North Cornwall to Dover, with three more in reserve, while 15½ with two more in reserve were available for the defence of the east coast. Not until early September was it realised that an invasion might be aimed at the Sussex-Kent corner, and regrouping to meet this threat was not completed until mid-September.

The Royal Navy

In the First World War the Navy had never guaranteed that a landing from the sea was impossible, only that it would cut the communications of any invading force. In 1940, faced by the possibility of concentrated air attack, the Navy could no longer be sure of even cutting communications, while the chances of catching an invasion fleet en route depended largely on air reconnaissance. The Admiralty judged that air reconnaissance might not supply sufficient warning and therefore planned to harass the enemy with mines and bombardment during the assembling of an invasion



Possible German strategy during the summer of 1940.



GHQ Line defences. **Top** Asparagus beds: steel posts set in concrete and usually concealed by long grass. Set at various heights, and in some cases capped with explosives, these were an effective anti-tank device, ripping off the tracks. **Centre** anti-tank ditch, concealed with brushwood when possible. Such well-constructed ditches were comparatively short and more akin to the pit-falls of earlier warfare. **Bottom** various concrete 'dragons' teeth to act as barriers. If tanks attempted to surmount these barriers, they exposed their bellies to anti-tank gunfire.

fleet and, if this proved ineffective, to launch attacks against enemy shipping as it arrived off the English coast.

Some 400 trawlers and drifters of the Auxiliary Patrol and a further 700 sloops, corvettes, minesweepers and other small craft were deployed in a screen round the coasts of the UK, and throughout the summer 200-300 of these were constantly at sea between the Wash and Sussex. (The Admiralty used aircraft and 35 submarines for reconnaissance at a greater range.)

Yet this force was insufficient to give complete coverage and in early July the Admiralty warned that in favourable conditions 12,000 troops might be landed by a surprise crossing in small craft between the Wash and Dover, and perhaps another 5,000 between Dover and Land's End; any larger force would have difficulty reaching the south coast without being detected.

In bad weather a force of about 50 transports, carrying perhaps 50,000 men with AFVs, might get ashore between Rosyth and Lowestoft. All vessels of the Home Fleet

Continued on page 600

'German' troops captured during anti-invasion exercises in the summer of 1940. Could it really have happened? (IWM).



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Left Hitler's invasion fleet: barges assembling at Boulogne (IWM). Right Napoleonic coastal defences at Tenby: St Catherine's island from the sea.



Continued from page 598

were therefore deployed in the east and south east ports except the battleships, which remained in the north because of the threat of the Luftwaffe and the lack of room to manoeuvre in the Channel and Narrow Seas.

The RAF

The strategy of the RAF was to use Fighter Command to defend its own organisation and the aircraft industry against the Luftwaffe during the pre-invasion period; Bomber Command to attack invasion fleets as they assembled; and Coastal Command to maintain constant surveillance over the enemy's invasion preparations. When the invasion actually began Fighter Command was to concentrate on troop- (and possibly tank-) carrying aircraft and cover RN attacks on enemy shipping; Bomber Command was to attack the invasion ports and vessels at sea; and Coastal Command was to join the fighters in defence of the Navy and the bombers in attacking shipping. Should the combined British Forces fail to prevent the enemy establishing a beachhead the RAF had orders to drench the beachheads with Mustang Gas.

Britain's ancient coastal fortifications: the Napoleonic Great Redoubt at Eastbourne, which was armed with 6-inch naval guns, showing part of the moat.



Home Forces dispositions September 11 1940

AIRFIX magazine

squadron codes and colours 1939-1956



By Michael J. F. Bowyer and John D. R. Rawlings

KA 13 Group Communications Flight (?)

Martinet MS928 coded KA:E was used by this unit at Dalcross June 6 1945 to May 30 1946 and the coding KA may belong to the above unit.

KB 1661 Heavy Conversion Unit (c)

For details see GP.

KC 617 Squadron (c)

Soon after the famous Dams raid the squadron adopted KC coding, relinquishing AJ. Letters used on Lancaster I/IIIs, eg KC:Q-LM492, and in 1945 on Lancaster VIIIs, eg KC:G-NX783. Used on Lincolns from September 1946 to April 1951, eg KC:A-RF513.

KC 238 Squadron (c)

Used on Hurricane IICs in the Western Desert in early 1942. Used by the squadron during operations over southern France March 1944 to October 1944. Disbanded October 26 1944. Letters had been used on Spitfire IXcs, eg KC:M-MK486. Reformed as a transport squadron November 23 1944 and subsequently operated in India and Australia. To UK 1946, renamed 10 Squadron November 5 1948.

KD 30 Operational Training Unit (c)

Formed Hixon June 28 1942, to Gamston February 2 1945, disbanded June 12 1945. Letters used on Wellington 1As, IIIs, eg KD:O-BK546, Mk Xs, eg KD:X-LN180, Moth Minor KD:Z-W7975 (in use August 1942-October 1943).

KE Merchant Ship Flying Unit (c)

Letters used by MSFU, a large unit which looked after the needs for CAM ships, and which was based at Speke. Letters worn by some Hurricanes on CAM ships, eg KE:M-Z4931.

KF Identity not known

Letters seen on Whitley V KF:A on November 1 1941 — an aircraft of an airborne squadron? Halifax V LL502 is recorded as being coded KF:G, the machine having been used by 1667 CU then 1662 CU.

KG 204 Squadron (c)

Letters worn by Sunderlands between September 1939 and late 1941. Squadron based at Mount Batten at the start of the war moved to Sullom Voe in March 1940, to Iceland April 1941 and West Africa September 1941 where the codes were given up. Examples of aircraft: KG:H-L2158, KG:F-T9072.

KG 3 Operational Training Unit (c)

Letters taken over from 204 Squadron. 3 OTU formed at Chivenor November 27 1940

June 1975

using Ansons, Blenheims and Beauforts, the last course ending there July 20 1941. Letters worn during this period — if any — not known. Unit reformed at Cranwell on August 6 1941 equipped with 20 Whitleys, nine Wellingtons, nine training aircraft and four target towers. Whitleys were certainly coded KG, eg KG:M-T4177. Moved to Haverford West June 23 1943 and used Templeton as its satellite using Wellingtons and Ansons. Disbanded January 4 1944. Period of KG coding not known.

KG 1380 TCU (c)

Date of introduction of KG coding not known, but in use late 1945 until disbandment in January 1946 when the unit was at Tilstock with Wellingtons, eg KG:G, KG:N. Possibly 81 OTU had also used KG coding. JB also used, on Ansons in 1946. A Wellington used is believed to have been KG:J-LP947. See also EZ.

KH 403 Squadron (c)

Formed Baginton March 1 1941 and equipped with Tomahawks, eg KH:D-AH887 used April 15 1941-June 12 1941. Used Spitfire 1s from May 1941, eg KH:N-R6611, IIs August 1941-January 1943, IXbs January 1943-February 1944 and Mk XVIIs December 1944 until disbanded June 30 1945.

KH 11 OTU (c)

Letters known to have been used at Oakley on Hurricane IVs in 1945, eg KH:B-LF772 and KH:X-PG450.

KI 20th Fighter Group USAAF (c)

Letters worn by 55th FIS on P-38Hs September 1943 to June 1944.

KI Station Flight Coningsby (c)

Letters confirmed, use not known.

KJ 11 OTU (c)

Formed at Basingbourn in April 1940, used Steeple Morden as a satellite. Moved to Westcott September 1942, disbanded October 3 1945. Letters used on Wellington 1s, eg KJ:A-L4381 (used April 1940-September 1942, 1as, 1cs, eg KJ:L-R3212 missing June 25/26 1942, Mk IIIs and Mk Xs, eg KJ:F-HE318, KJ:H-LP430 and sundry trainers, eg Master II KJ:E-AZ382, Martinet KJ:B-JN587 and Defiant KJ:A-L7011.

KK 15 OTU (c)

Formed April 8 1940 from 75 and 148 Squadrons at Harwell. Disbanded March 1944. Also coded FH. Examples: Wellington 1cs KK:L-T2945 and KK:W-L7793, and KK:Z-NA952, a Mk X.

Napoleonic Wargaming

Skirmishers and melees discussed by Bruce Quarrie

SEVERAL READERS of my book *Napoleonic Wargaming* (Airfix Magazine Guide 4, PSL, £1.20) have raised queries relating to the rules for skirmishers and melees, which are perhaps not as clear as they might have been.

Taking skirmishers first: these are any light troops, either light companies from line battalions or whole light battalions, operating in open or extended order.

The first query concerns allocating casualties on a line battalion which comes under fire while protected by its own voltigeur company in skirmish order. The procedure here is really quite simple. The firing player works out his fire points as if aiming at an ordinary close order target, remembering to add ranks deep for penetration effect where appropriate, then deducts points for skirmish order according to the type of weapon being fired.

Thus, for example, a British line battalion firing muskets at 100 yards range at a French column seven ranks deep with skirmishers in front, would count +2 (fire factor), -2 (range), +1 (ranks deep — the skirmish line does not count as a 'rank'), and finally, -4 (skirmish order) — total -2 plus a fire die. The figure for ranks deep is only one, not two, because a musket's penetration is only 50 yards. Penetration is measured from the closest figure — ie the skirmish line.

The casualties may simply be deducted from the battalion as a whole, for simplicity, or divided between the skirmishers and the column. In this case it would be 1/4 on the skirmishers and 3/4 on the column.

Taking another example, with a unit firing through an independent battalion of light infantry in skirmish order at a column behind, much the same procedure is employed, adding on for ranks deep on the column and deducting for skirmish order, but in this case the casualties are split as follows: 50% on each unit if canister or musket fire is involved and 33% on the skirmishers and 66% on the column if ball is used. If shell is being fired from a howitzer and the

A scene from a wargame featured in the book showing a French line battalion (on left) with voltigeur company in skirmish order, and two light companies acting independently on its flank.

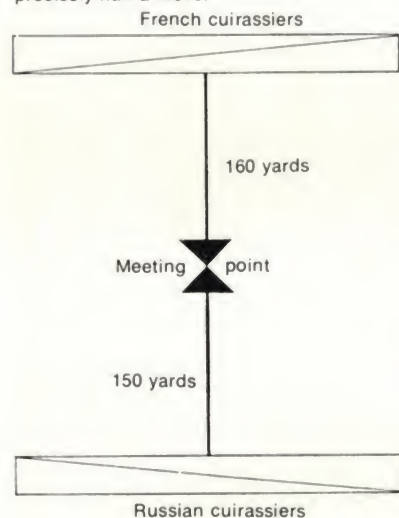


gun crew can see through the skirmishers, then all the casualties may be taken from the column.

Now a quick point about *mêlées*. A couple of people have told me that when they have a cavalry charge and counter-charge, with impact and confused *mêlée* factors being taken into account in the first round of fighting, the two units often practically wipe each other out, especially if they are heavy cavalry at three head points per figure.

What these readers — and, presumably, other players — have forgotten to take into account is that the actual *mêlée* only occupies a small proportion of a charge Move. To give an example, a squadron of four French cuirassiers charge a squadron of four Russian cuirassiers.

The first thing which must be done is measure the distance between them at the start of the Move to make sure that both can reach charge speed. This is laid down as 150 yards in the rules so, if both squadrons were moving at equal speed, they would need 300 yards between them at the beginning and would meet at the mid-point after precisely half a Move.



However, the French charge Move in line is 320 yards, the Russian only 300. Thus they need to be at least 310 yards apart at the beginning of the Move for both to achieve charge speed when they meet. If the distance was only 300 yards the French would have room to make charge speed before encounter but the Russians would not, and consequently only the French would gain impact factor.

However, for the purposes of this explanation, assume they are 310 yards apart at the beginning of the Move, and thus meet half way through the Move after the French have travelled 160 and the Russians 150 yards. You can now work out the *mêlée* casualties using the factors in the rules but at the end you *halve* them because the actual fighting only occupied half the Move. OK?

Next month, space permitting, I'll give some national characteristics figures for some of the smaller nations not covered in my book. □

Peninsular War figure conversions

This month, a French lieutenant from Martin Windrow and Gerry Embleton

MANY FRENCH officers in the field wore, instead of their colourful and expensive uniform coat, a simple single-breasted *surtout*. You can achieve this effect with patience, body putty, a sharp knife, and bits of the Rifleman and Imperial Guard Grenadier kits.

Use the front section of the Rifleman's torso, and the rear body of the 'Grumbler'. They don't fit neatly, and all we can really advise is that you offer them up, cement at the most convenient angle, and fill the gaps with putty for subsequent filing and trimming to a smooth finish. Trim off the outer rows of chest buttons, and the pocket detail. The collar was high, and we used a Historex head and collar since we wanted a bare-headed figure, though you could apply surgery to Airfix parts à la Sid Horton. The arms are optional, depending on the desired position; the cuffs were plain and round.

The legs are also optional. Some officers wore loose trousers in the field, over their knee-boots — blue or white according to season. Others wore a popular form of knee-boot which we have selected for our figure. It came to just below the knee, and was of black leather with a tan-coloured cuff at the top and tan loops hanging down each side.

We achieved this effect by carving a pair of Rifleman's standing legs to shape and adding cuffs and loops from thin plastic card — the sheet supplied for belts, etc, in the Airfix kits. The breeches and trousers of all infantrymen of the period fastened by means of a square 'fall' at the front, not by a central fly; and the narrow sword-belt often passed under this section of cloth, hiding the buckle, and under the coat tails. We achieved this simply with two small strips of plastic card.

Flank company officers wore sabres on slings from the waistbelt, fusilier officers a straight *épée* in a frog. This is hidden under the coat on the left hip; we used a Historex *épée* and scabbard, the latter cut down slightly and cemented at the top under the coat-tail. Epauettes also came from one of the many superb Historex spares sprues; for a lieutenant they should be as shown on our model — a fringed epauette on his left shoulder and a fringeless *contre-epauette* on the right.

Pensive French officer in surtout — note loops on outside cuffs of boots. Sword, scabbard, shako and epauettes are Historex spares, as is the head.

The shako had come into general use by officers by 1813, and in the field was usually covered with an oilskin sleeve, only the brass scales and the pompon protruding. The one big gap in the Airfix range of Napoleonic at the moment is a French line shako. You could build one up from Plasticine or DAS round a Rifleman's shako as a core. We had a Historex item going spare, so used that. It is a bit big, but as we wanted



AIRFIX magazine

Appearance of covered French shako. Some covers did not have neck-pieces; some laced vertically up the back, others had a buttoned join at the side.



to achieve a 'wrapped' effect this was all to the good.

We melted small strips of plastic card over the side surfaces with a Pyrogravure, then smoothed in some wrinkles to represent the oilskin cover. This had a neck-flap quite often, and this was tied with a thong behind the pompon when not required, giving the effect shown in the accompanying sketch. We used a pompon and scales from the Historex sprue, and that was that.

The shako should be painted fawn, with brass scales and black peak. The pompons varied enormously, but the shaving-brush shape seems to have been usual. Red for grenadiers, yellow for voltigeurs, white for staff officers, and pale blue, dark green, violet and orange for fusiliers have all been recorded.

The coat should be dark blue all over, and the trousers can be blue or white. The epauettes of a lieutenant were gold with a red central stripe along the full length of strap and crescent — remember to 'break' this where the gold retaining loop crosses the strap.

The coat details can vary according to taste. Most officers of grenadiers and fusiliers had red collars, and voltigeurs yellow. Sometimes the coat was otherwise quite plain; sometimes it had lines of red piping down the front, round the top of the cuffs, and round the edges of the turnbacks. Turnback ornaments were usually worn, according to company: a gold grenade, a gold buglehorn, or, for fusiliers, a gold crowned 'N'. Belts were white, scabbards black, and sword-hilts gilt. Green gloves seem to have been popular.

Officers often wore blue greatcoats rolled into a horseshoe and slung round the body over the left shoulder — convenient on the march, and some protection against sword-cuts. A variety of privately purchased flasks were often slung on a cord or a strap.

For further details see *Military Dress of the Peninsular War* under Fig 53, Plate 11, and Fig 86, Plate 18. Gilt gorgets were frequently but not invariably worn in the field; if you wish to add one to this figure, either use a Historex item or make one up from the unused peak of the Rifle officer's shako. A gold fist-strap for the sword can be made from painted cotton thread. □

The first detailed book on the subject! No figure modeller dare ignore it . . . Modelling Miniature Figures

Edited by Bruce Quarrie

No other publication on this subject has gone into such detail about the different scales, materials and techniques that can be used when modelling, converting and animating model soldiers and other miniature figures.



Individual chapters are written by renowned modellers, many of whom have written for *Airfix Magazine*, and between them they cover figures ranging from the tiny Airfix plastic soldiers to expensive large-scale metal pieces. They include Donald Featherstone writing on metal casting (a useful process for wargamers who need lots of small figures), Martin Rendall on wood carving (a technique that may be new to many modellers), Roy Dille on making the realistic dioramas for which he is famous, and Sid Horton on Airfix figures (of course!). The book is profusely illustrated with photos of figures under construction and finished, as well as line drawings showing specific conversion techniques and examples. Lists of manufacturers and their addresses, accessories, societies, and books for further reference make this an invaluable purchase for anybody making model figures in any scale. 152 pages, 9" x 6" (228 x 152 mm), 88 photos and 119 line drawings. £3.75 net (£3.98 by post)



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in the field

Terry Gander and Chris Foss

A day with the TAVR

RECENTLY WE HAD the opportunity to spend part of a weekend training session with a local TAVR unit, namely 'C' Company, 7th (Volunteer) Battalion, The Queens Regiment. This unit is based at Crawley in Sussex, and is typical of many Territorial Army Volunteer Reserve units scattered up and down the country.

It is an infantry unit whose task in war, to quote from their recruiting material, is 'To provide a force which can be used for either home defence or anywhere else in the world'.

Behind this statement are a few extras — for a start it would be quite on the cards that the 7th Queens would be called out in a civil emergency such as a major disaster, and another extra is that the 7th Queens is not

part of the BAOR NATO commitment. Quite a large chunk of the British presence in Europe is made up from TAVR units and in Germany a fair number of units are merely holding units ready to receive TAVR manpower which would be flown over in an emergency situation. All this is not to say that units such as the 7th Queens would not be used away from the UK in an emergency — as it says in the statement quoted above 'or anywhere else in the world', and the world is still a big place.

But to return to that training weekend. Volunteers are required to spend 15 days a year at an annual camp and a further 12 days a year on out of camp training. The weekend we became involved in was one of the out of camp sessions and consisted of

two days range work.

The ranges visited were at Ash, near Pirbright in Surrey, and in typical army fashion it rained most of the time. The ranges are modern and well-appointed and use falling figure targets instead of the usual Bisley 'bulls-eye' circles. If a man-sized target was hit it fell and a counter in a range hut totted up the score.

The weapons used were the SLR (of which more below), the LMG — more familiar to many as the well-known Bren — the SMG and the Browning 9 mm pistol. The Bren has now been re-calibrated to 7.62 mm and has a new magazine and a flash-hider in place of the original flared muzzle but is as easy to handle and use as ever.

As the 7th Queens is a home-commitment unit it does not use the more modern GPMG — only NATO units are equipped with those at present although they are gradually filtering through to TAVR units. The SMG is the Sterling 9 mm which uses the same ammunition as the 9 mm Browning Pistol.

All these weapons were fired during the weekend with the emphasis on the SLR which, as always, is the main personal weapon of the infantryman. While we were there firing was carried out at 200 and 300 metres. It did not take very long to discover that the SLR is not as accurate as the old .303 Enfield rifles, but what it lacks in accu-

Left two views of the equipment and uniform worn by the TAVR infantryman. The equipment and uniform are the same as those used by regular forces. **Below** firing the 9 mm pistol.



Above the 9 mm SMG. **Above right** personal instruction with the SLR. **Right** the SMG in action.



racity it more than makes up for in firepower. There is little recoil to speak of so the weapon is easy to use in the early stages of training and the old problem of overcoming the fear of the 'kick' is one that recruits no longer have to face.

All the time that firing was in progress strict range and safety precautions were in force and due to the high-frequency 'crack' of the SLR round when fired, ear defenders were worn by all.

One thing that we were not prepared for in a part-time force was the ages of all the ranks involved. We were prepared for the old-sweat image to be to the fore with tales of 'remember that caff just over the Rimegan Bridge?' but instead the ages of most of the soldiers on the range were in the 20s and a good proportion were in their late teens. As a result the general atmosphere was relaxed and friendly and the overall impression was of a self-imposed discipline rather than the old enforced order-taking. The officers are also young and are promoted from the ranks — the CO of the unit we were with is a major at the age of thirty. Most of the senior NCOs have seen some full-time service but again the accent is on the younger man. Overall we were most impressed with the standard and bearing of this unit and the shooting skills were also of a good standard.

The TAVR has taken the place of the old TA and has units scattered up and down the length of the country. The units involved

cover every aspect of the modern army and include artillery, signals, transport, para-troop, medical, and other arms. There is even a Special Air Service TAVR unit. Many units spend their 15 day annual camp abroad in Germany or the Med, while completing their annual training commitments they are paid at current regular army rates. There are also training bounties.

The lower age limit is 17½ and recruits can sign on for as little as two years at a time. If you want a useful spare-time occupation that can pay as well as gaining the comradeship and social life that the TAVR can offer you could do a lot worse than pop round to your local TAVR centre and make a few enquiries. If you are made as welcome as we were at the Crawley centre you won't regret it. Our thanks are due to all the members of 'C' Company for a pleasant and instructive time. □

The SLR MIAI

AS THE MAIN weapon of the British infantryman, the SLR, or Self-Loading Rifle, deserves a little space in this column. It has been in service with the British forces since the late 1950s and is also used by many other forces all over the world.

Originally the SLR was a Belgian design produced by the Fabriques Nationale

D'Armes de Guerre (FN) who are based at Herstal near Liege. Design work started there on a self-loading rifle before the Second World War and in 1948 the first design was produced to fire the German 7.92 mm kurz round.

This was followed by a design to fire the unsuccessful British .280 inch round and the rifle to fire this round also used a 'bull-pup' design (ie the magazine was behind the trigger mechanism) similar to the British EM1 and 2 rifles.

This design was abandoned in favour of a conventional layout when the standard NATO 7.62 mm × 51 round was adopted. In this form the rifle became the FAL (Fusil Automatique Legere) and this design was eventually adopted by the British Army after extended trials and tests when it became the SLR.

This version is built at the Small Arms Factory at Enfield but the type is also made not only in Belgium but in the Argentine, Australia, Austria, Canada, India, South Africa and Norway. It is used by a whole list of armies and many of these forces have included their own mods, such as heavy barrels, bipods, folding butts etc, and the British Army is thus not alone in making its own changes with such things as the removal of the full-automatic facility — the SLR can fire single shot only.

In British service the SLR uses a 20-round magazine but a useful extra is that the 30-round magazine used on the 7.62 mm LMG



The SLR with a 20-round magazine.

can also be used with the helpful facility that the SLR magazine can be used on the LMG. The SLR is very easy to handle and field-strip to the extent that I was able to strip and assemble the weapon after only a few minutes of instruction.

When fired the weapon has very little recoil, but as already mentioned the rifle is not super-accurate and relies on firepower for its effect. The SLR can be fitted with a bayonet and a large Arctic trigger-guard is an optional extra. Rifle grenades can be fired from the muzzle.

The action is gas-operated in a manner very similar to that of the old Bren gun with gases being tapped off from over the barrel. In keeping with current firepower thoughts elsewhere the SLR is sighted up to only 600 metres and is intended for ranges shorter than that.

In many ways the SLR is too good for its job in that it fires a round too powerful for modern conditions. The trend recently is towards a smaller calibre round, typical of which is the 5.56 mm round fired by the

American M-16 rifle, while experiments are taking place with calibres as small as 4.5 mm (0.177 inches). This does not mean that the SLR will soon be out of service — far from it, for changing over the rifle that every serviceman has to be intimately familiar with is a very protracted process and the SLR will be with us for very many years yet.

A short list of the main dimensions and weights of the SLR follows. □

SLR details

Length of rifle	2,000 mm/43.3 in
Length of barrel	553 mm/21 in
Weight empty	4.31 kg/9.5 lb
Weight loaded	5.06kg/11.125 lb
Muzzle velocity	823 m/s/2,700 ft/sec
Maximum effective range	600 metres/650 yards
Sight radius	553 mm/21.8 in
Sight graduation	200-600 metres in 100 metre clicks
Rifling	4 grooves. One RH turn in 305 mm (11.9 in)

The SLR with the 30-round magazine normally fitted to the LMG.



Sketch showing the way the drum was played on the march. The horse was controlled, as now, by reins attached to the stirrup iron.

Drummers and Hautboists

THE HEADRESS was the mitre shaped grenadier cap with a white tassel, blue front and red little flap. The back of the cap red with a small blue turn-up. The blue front was decorated with the regimental device, the Royal Crown over the Garter with a red centre bearing the Royal Crest. The blue turn up at the rear bore a drum with '1' and 'D' on either side.

The coat was in the Royal Livery, scarlet with dark blue lining, cuffs and collar patches, and was decorated with gold loops and buttons and the Royal Lace, yellow with blue stripes.

The waistcoat was blue and the coats had hanging sleeves at the rear fastened at the shoulder and waist. The breeches were blue.

The dragoon drummers carried the drums under the left arm on a laced strap over the right shoulder. The drums were brass with the fronts painted blue decorated with the Regimental Crest. The rims were red. Drummers were generally mounted on grey horses.

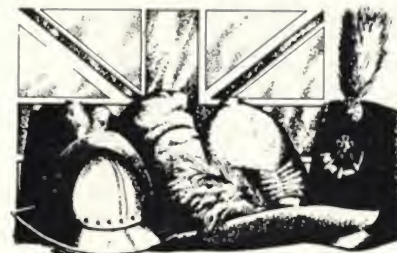
Farriers

Black fur caps with a hanging bag of red cloth with a fur tip or tassel. The farriers probably wore blue coats and carried saws by their sides and shovels in place of slung carbines. On parade they carried axes and wore hatchets at their belts. They wore white aprons and white gauntlet gloves and were mounted on grey horses. Two fur-covered buckets, described as 'muff cases', were carried instead of holsters and were filled with shoes, nails and tools.

Horse furniture

The regimental horse furniture, 'housings' and 'holster caps' were blue cloth and were decorated with the Regimental badge in full colours and edged with a mixture of the English Rose and Scottish Thistle on a

AIRFIX magazine



1st Royal Dragoons c 1742 by Bryan Fosten

single stalk. The centre of the badge was red with a double reversed 'GR' cypher. (See page 490, April 1975 issue of Airfix Magazine.)

british army uniforms 1660-1900

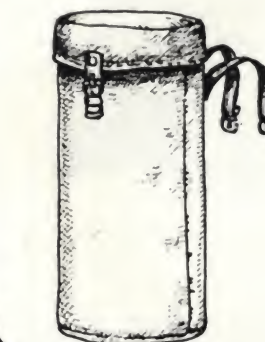
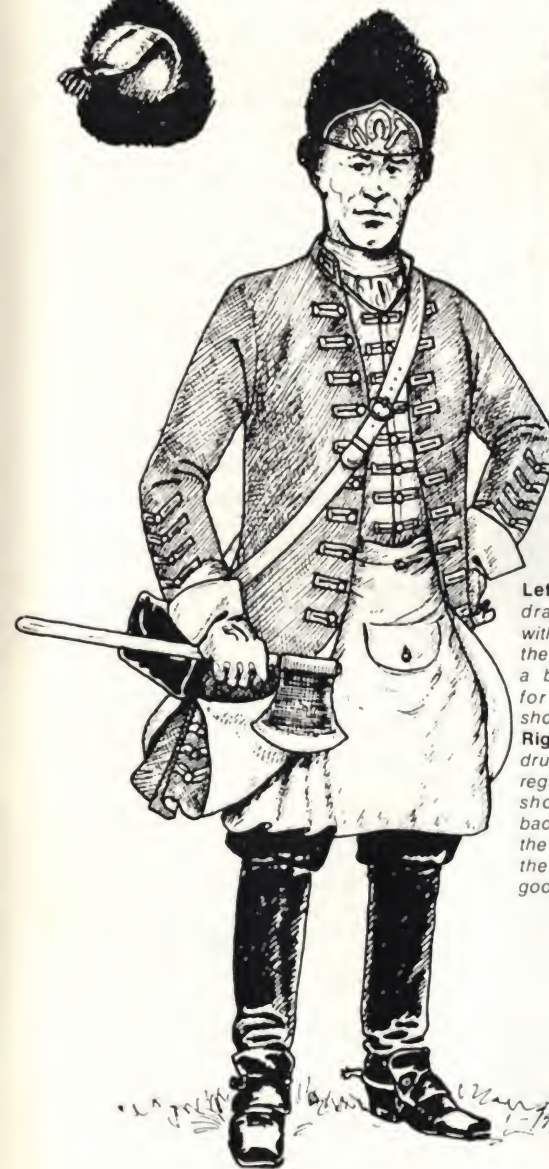
Cloaks

Were red and lined blue and carried rolled and strapped behind the saddle with three straps.



Guidons

Three were carried. The 'Kings' or 1st colour was crimson with the Rose and Thistle conjoined in its centre and the Royal Crown above and 'Dieu Et Mon Droit' beneath. The springing white Hanoverian Horse was in the 1st and 4th corners and '1D' in gold on a blue ground in the 2nd and 3rd corners. The second and third Guidons were blue with the Royal Crest set in the Garter in the centre. The White Horse on a red ground was displayed in the 1st and 4th corners and '1D' on a red ground within a wreath of Rose and Thistle, in the 2nd and 3rd corners. The third Guidon had a gold '3' on a circular red ground beneath the central device.



Left a farrier of a dragoon regiment with, inset, the back of the fur cap (left), and a bucket or 'churn' for carrying nails, shoes, etc (above). Right the coat of a drummer of a 'Royal' regiment of dragoons, showing front and back views. Top right the musician's cap of the 1st Royal Dragoons.



June 1975

NEW kits and models

Bandai AFVs

THE BANDAI range of 1:48 scale tanks and AFVs is now well established, and this handy scale is proving very popular with a large number of modellers, especially thanks to the large amount of intricate detail included in these kits. The four latest received for review are a German Nashorn SPG and Möbelwagen Flak tank, and American 155 mm M12 GMC and M3A1 half-track.

All of these assembled with little difficulty as the standard of moulding and fit of parts was fairly accurate. The lack of definite location bars or pins could be a handicap to the younger modeller but is not too much of a drawback for anybody with some modelling experience. Body filler had to be used on some joints, but all parts were reasonably free of flash and sharply moulded.

All the kits include engine detail which is not visible on the finished model unless some access panels are removed and is thus a dubious feature for all except those who like making engine maintenance dioramas or similar.

Internal details are well represented on all four models, with seats, ammunition boxes and tools etc, important features on AFVs with open fighting compartments.

Three or four crew members are included with each kit and an extensive choice of decals.

The instruction leaflets are well drawn and clear with brief historical notes and representative paint schemes.

Price of each kit at time of receipt was £1.65 but the Budget will undoubtedly have altered that by the time you read this.

Our models were kindly supplied by Ren-Models of Cambridge.

Genuine colour chips

MODELLERS ARE always looking for really authentic colour samples with which to match their own paint mixes for greater accuracy. A new series of authentic colour chips from *Aviation News*, just released, is therefore more than welcome.

Intended as the start of a series of aircraft paint samples, these new cards give three colour chips measuring 25 mm by 42 mm in each release for 45p. The first, now available, are of the standard NATO colours, dark green, dark sea grey and light aircraft grey.

Each card has a short history of each colour and where it is used. The British Standard and American FS colour equivalents are also listed. One edge of the card is eyeletted for eventual inclusion in a binder.

When we first saw the review copy it looked as if the dark green was too dark but it is surprising how this alters under different light conditions. Bright sunlight makes the colour look just as it should, though artificial light produces an entirely different shade. This is probably understandable and the publishers have included a note on this. As weathering, different light conditions and service use all tend to change colours considerably, they have stated that the col-

Continued on page 610

MODELDECATOYS

PLASTIC KIT SPECIALISTS—ASSOCIATE MEMBER I.P.M.S.

MODELDECAL DECALS

1/72 SCALE

All listed sets available:

- 1: BAC Lightning Mk. 1A, 2 and 6 (six alternatives in RAF service).
- 2: F-4 Phantom (VFMA-531, USMC; 497th TFS, USAF and 767 Sqn., RN.).
- 3: N.A. F-100D Super Sabre (four alternatives in USAF service).
- 6: U.S. Navy (F4U-1A Corsair, VF-17; SB2C-3 Helldiver, VB-7; OS2U-3 Kingfisher, and F-4 Phantom, 6 Sqn., Phantom FGR2, 6 Sqn., Meteor F.4, 63 Sqn., and Harrier GR1, 1 Sqn.
- 10: USAF-S.E. Asia (RF-101C, F-105D, A-1H and EC-47N).
- 11: F-102A, 460th FIS, USAF; Harrier GR.1, 4 or 20 Sqn. RAF, Sabre 6, 430, Sqn. RCAF and alternative RCAF Sabre fin emblems.
- 12: Phantom FGR.2, 17 Sqn., RAF; F-104G, Belgian A.F. and USAF TAC Badges.
- 16: USAF-S.E. Asia (2): F-4E Phantom, 34TFS, 288TFW, Cessna 0-2A 23 TASS, AC-47 432TRW, and USMC OV-10A Bronco, HLM-267.
- 17: T-33, RCAF; F-35 Draken, 725 Sqn., Danish Air Force; Mosquito FB.VI, 4 Sqn. RAF, Skyhawk, 805 Sqn., RAN, and A-4K squadron markings for 75 Sqn., RNZAF.
- 18: Royal Navy—Post War: (Gannet 4 COD, Sea Hawk F.1., 898 Sqn., Wessex Mk. 1, Ark Royal, and Avenger 6, 831 Sqn.).
- 19: West German Air Force and Navy (RF-4E Phantom, AG51 or 52; F-84F Thunderstreak, Jabo 33; RF-84F Thunderflash, AG51; Sea King Mk. 41).
- 20: H.S. Buccaneer, 821, 800 and 809 Sqn., F.A.A.; NF-5A Freedom Fighter, 314 or 315 Sqn., Dutch Air Force, and L-20A Beaver, 334 Sqn., Dutch Air Force.
- 21: A-4E Skyhawks VMA-311 VA-94, A-4F Skyhawk, VA-164, AD-4 Skyraider, VA-65.
- 22: A-7D Corsairs, 356 TFS, 354 TFW., and 40 TFS, 355 TFW., with alternative decals for 357 TFS, 355 TFW., T-33A, 50 TFW., and F-86A Sabre, 116 FIS.
- 23: Phantom F.G.1, 43 Sqn. Harrier, G.R.1A, 3 Sqn. Lightning F.2A, 92 Sqn. All RAF CF104 Starfighter 421 Sqn., C.A.F.
- 24: RAF Hunter F.6, 79 Sqn. Phantom F.G.R.2 41 Sqn. Sea Venom F.A.W.21 809 Sqn. Sea Venom F.A.W. 21 890 Sqn. F.A.A. Wyvern S.4. 831 Sqn. F.A.A.
- 25: Lightning F.2A, 19 Sqn. Canberra B.10 16 Sqn. Harvard T.2B, 500 Sqn. Hunter FGA.9, 45 Sqn. All RAF.
- 26: Buccaneer S.2B, 15 Sqn. Hunter FGA.9, 58 Sqn. Canberra B.2 10 Sqn. Gazelle H3T C.F.S., All RAF, R.N. Gazelle HT2.

ADDITIONAL SETS

- 27: Canberra T.4, 231 OCU, RAF, Cottesmore 1974.
- Hunter T.7, 4 FTS, RAF, Valley 1973 (or 56 Sqn. 1962).
- Phantom FGR.2, 111 Sqn. RAF, Coningsby, 1974.
- Buccaneer S.2B, 208 SZA, RAF, Honington, 1974.
- 28: Canberra E15, 98 Sqn. RAF, Cottesmore, 1974.
- Hunter T.8, 764 Sqn. F.A.A., 1964.
- Jet Provost TS, 3FTS, "The Swords", RAF Leeming, 1974. (Serials provided to make any one of Team)
- Lightning F3, 29 Sqn. RAF, Wattisham, 1971.

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Continued from page 608

ours shown are 'factory fresh'. This is probably the only common denominator as every aircraft on which a camouflage colour appears will be subjected to vastly differing environmental conditions during its life and therefore will alter accordingly.

Unlike other attempts we have seen in which colour chips have been marketed, these are quite a reasonable size and are big enough to be of use to anyone painting a model — or even a full-sized aeroplane. *Aviation News* tells us that they can reproduce either gloss, semi-gloss or matt colours using the special printing process employed.

The colour chips can be obtained from *Aviation News*, PO Box 4, Beaconsfield, for 45p including post and packing. We hope that this first sample will be the start of a whole series as this is a subject which sadly needs more attention. Just have a look at some of the colours from the recognised model paint manufacturers and you will see what we mean!

Razorback P-47D

HASEGAWA'S LATEST 1:72 scale aircraft kit depicts the 'razorback' D version of the famous Thunderbolt, and builds into an excellent replica of this very large single-engined fighter.

Despite minor criticisms such as the arm-chair provided for the pilot figure, this is a well thought-out and crisply moulded kit, with only a few traces of flash around parts such as wing roots. The engraved detail is excellent, down to the correct tread pattern on the undercarriage tyres, and a nice touch is the provision of a transfer for the instrument panel.

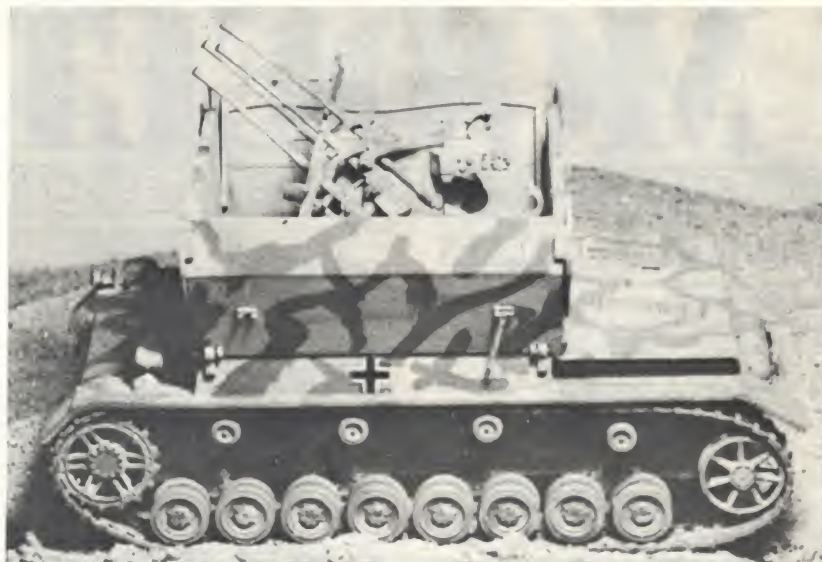
Markings for three machines are included, an 8th and a 12th AF machine in US service and an RAF Thunderbolt Mk 1. Two bombs are supplied as underwing stores. Price of this kit, which deserves to be very popular, is 50p from Ren-Models of Cambridge.

Faller

FALLER HAVE some interesting new additions to their range of HO trackside equipment for 1975, including a crushed stone storage hopper (£1.80), working conveyor belt (£3.70), a superb German-style main line station (£6.50), warehouse (£2.39), mechanical level crossing with two guard huts (£4.12) plus several new models in the plastic and cardboard Kwik-Kit line. There are also two new O-gauge train sets complete with loco, stock and track lengths, at £9.15 (diesel) and £12.40 (steam), together with O-gauge station, signal box and engine shed, and goods depot, at £3.70 each. In N-gauge new items include glass-covered platforms (£2.39), a footbridge (£1.15), two different level crossings and a water tower.

Chi-Ha

FOLLOWING HARD on the footsteps of Airfix's recent model, Fujimi have now released a 1:76 scale kit of the Japanese Type 97 medium tank 'Chi-Ha'. Comparisons between the two kits are inevitable, and the surprising thing to find (and we are *not* say-



Bandai's 1:48 scale Möbelwagen flak tank.

ing this just because we are 'Airfix' magazine) is that the Airfix offering is superior in almost every detail, especially on the hull and suspension.

Airfix's kit falls down mainly in slightly over-heavy rivet detail, though on a tank kit this is not such a disadvantage as it is on an aircraft since the rivets tend to disappear under a couple of coats of camouflage paint anyway.

Where the Fujimi kit, on the other hand, scores, is in the opening turret hatch and two crew figures provided with the kit, and

in the very large variety of optional transfer markings included. However, it contains fewer parts than the Airfix model and is considerably more expensive — 60p compared with Airfix's 23p. Probably the best answer is to buy one Fujimi kit and use the transfers to decorate a collection of Airfix models! Review sample from Ren-Models of Cambridge again.

Panzer Grenadier

A RECENT ADDITION in Hinchliffe's 75 mm figure range, supplied to us by Mainly Mili-

tary, 103 Walsall Road, Lichfield, Staffs, depicts a Waffen SS Panzer Grenadier. Unfortunately, compared with the earlier, Napoleonic, offerings in this series, the figure — which comes in kit form — must be faulted on several counts.

First, the helmet chinstrap has been moulded directly onto the face, necessitating some careful work with the file if you want a bareheaded figure. And a bare-headed figure is almost a 'must' because, from the size of the steel helmet provided, it really must have been somebody's coal scuttle. Or else the figure's head has shrunk!

Second criticism concerns the separate right arm, which does not fit well at the shoulder and requires some more careful work with the file to produce a good joint. And third is the MP 40 machine-pistol, which is too bulky. All in all this figure cannot be recommended, especially at the rather high price of £2.42.

ACW artilleryman

A MUCH MORE attractive offering from Hinchliffe, also kindly supplied for review by Mainly Military at the above address, depicts a gunner from the American Civil War wearing a typical kepi and nondescript uniform which can be painted in either Federal or Confederate colours. In 54 mm scale to accompany one or other of the Hinchliffe ACW artillery pieces, the figure is very nicely moulded in four pieces, with a separate head which can thus be positioned at any (anatomically possible!) angle, and a right hand holding a sponge which can also be positioned at different angles according to taste. A very nice model and reasonably priced at £1.15.

Fairey Fulmar

LATEST RELEASE received from RAREplanes is a very attractive vac-formed model of the Fairey Fulmar, another unusual subject neglected by the big kit manufacturers. Cleanly moulded on two sheets of white polystyrene with a transparent canopy, this model will be particularly popular with Fleet Air Arm enthusiasts. Both outer surface and cockpit interior detailing is excellent, and at £1.10 this limited-run 1:72 scale kit represents extremely good value. Obtainable from RAREplanes, 18 Hillford Place, Earlswood, Surrey.

Eastern Raider

REVELL'S EASTERN RAIDER, owned by Joe Mundet and driven by Al Hanna, is one of the top running funny cars in the USA and the Pinto-bodied creation regularly stuns race fans with its elapsed time and top speed honours.

Powered by a 1,800 hp, 230 mph, nitro-gulping, 488 cu in, Keith Black Hemi engine running on 92 per cent nitro, the 'Raider' can be seen racing in the United States at drag strips across the country, as many as three or four times a week.

Features of Revell's model are a detailed blown and injected Hemi engine tubular competition, funny car chassis, Wide Good-year front racing tyres, chrome super trick wheels front and rear, Zoomie headers and many chrome parts on engine suspension and steering. Price is £1.95.

June 1975



Moves

THE TWO LATEST issues of this magazine, which complements *Strategy & Tactics*, to reach us (Nos 18 and 19) contain major features on the games *Sniper*, *El Alamein* and *The American Revolution* (18), and *La Grande Armée* and *World War Three* (19). Number 19 also includes interesting articles on what makes a wargamer and women in wargaming, making it more popular in appeal than most issues of this magazine. Price is 85p per issue from Simulations Publications (UK), Freepost, Altrincham, Cheshire WA15 6BR.

Microtank Warfare, by Keith Robinson (56p); **Naval Warfare '39-45** (56p); **Napoleonic Warfare**, by T. J. Halsall & A. M. Roth (66p); **The Last Sea Battles — Naval Warfare Rules for World War 1** (41p); **Gladiatorial Combat**, by Trev Halsall and Phil Hamer (41p); **World War II (Infantry Combat)**, by T. J. Halsall (66p); All printed and published by Leicester Micromodels Ltd, 50 Walcot Walk, Peterborough PE3 6QF. Prices include postage.

LEICESTER MICROMODELS are best known for their extensive range of 1:300 scale tanks which have frequently been mentioned in this magazine in the past, and it is nice to see them now producing such a wide and varied selection of rules for wargames. All of these sets are produced to a common format, with duplicated pages of rules bound within properly printed shiny white covers, but vary in extent and price according to the subject being covered. There is not space here, unfortunately, to delve too deeply into each set, but in brief, if any of these periods is your speciality, and you are seeking a concise but realistic set of playing rules, then you could look a lot further and not find many better.

Keith Robinson's set, as its title implies, covers rules for wargaming with 1:300 scale tanks from the Second World War to contemporary Arab-Israeli actions. The rules are well thought-out, with performance characteristics etc for the most commonly employed vehicles (the choice being somewhat dictated by current availability of 1:300 scale models). Basic armoured formations suitable for use in wargames are given for Germany, Russia, America and Britain, and the rules cover such factors as visibility, movement penalties, observation, firing, machine-guns and flamethrowers, mines, infantry and aircraft. Considering the complexity of modern warfare, a good deal of simplification has been used in these rules' compilation but they do produce a good, fast-moving game. Our only quibble is that tanks are not allowed to fire while moving at all.

Naval Warfare '39-45 is a set of rules designed for use with Leicester Micromodels' own 400':1" models but which can, in fact, be used with any models up to 1:1,200 scale. They include such factors as weather, which of course is of particular importance in any naval game, search and detection, fuel consumption, repairs, refuelling, towing, night-time operations and signals as well as the expected rules for firing, determining hits and damage from gunfire, use of torpedos etc. Minefields, aerial attack and anti-aircraft fire also come within their scope.

Napoleonic Warfare is a set of rules used in the 1972-3 National Championships and is the result of four years' research and three years' intensive play. As a result the rules are not only pretty comprehensive but also logically laid out and playable, and all our quibbles are minor: for example, why is firing against a moving target calculated at the minimum range reached during the Move instead of roughly halfway? But in general these are a very good set of rules, although the allowances made for the differing capabilities of different nationalities and troop types are negligible.

The Last Sea Battles set of rules is essentially similar to that mentioned above dealing with the Second World War but, of course, excludes aerial attack and anti-aircraft fire. Other than that, the above comments apply equally.

Gladiatorial Combat is a set of rules designed to cater for the increasing numbers of wargamers becoming devoted to individual hand-to-hand games. The tone is set on the first page in the paragraph reading 'Assassination attempts on the Emperor's (umpire's) life will be viewed with some displeasure, probably resulting in a short meeting of the miscreant combatant with the Imperial lions, ie umpire's decisions are final.' But although lighthearted, the rules do provide all the basic ingredients — weapons, armour, movement, wound points etc — to enable anyone to fight an enjoyable Roman (or fantasy) arena combat.

World War II (Infantry Combat) is the most complicated set of all these rules, primarily for the obvious reason that so many different types of action can take place in modern combat and there are so many different types of weapon, each with its own capabilities and drawbacks. Contents cover such diverse subjects as infantry and soft vehicle movement, debussing and unlimbering, small arms fire, flamethrowers, melees, mortars, mines, booby traps, smoke screens and taking prisoners. There is also provision for fighting between infantry and tanks, but not for tank-versus-tank action.



Aviation

The Observer's Soviet Aircraft Directory, compiled by William Green and Gordon Swanborough. Frederick Warne & Co Ltd, 40 Bedford Square, London WC1B 3HE. **Price £3.25.**

THIS BOOK IS a concise and detailed reference work on Soviet aircraft development over the past quarter century. It includes the various Soviet systems of designating aircraft; provides information on the aircraft types, both civil and military, known to be currently in service in the Soviet Union; and includes appendices on the organisation and current status of the Soviet Air Forces and national airline. There are plenty of interesting photographs and drawings, and the text contains a surprisingly large amount of information, considering the Soviet Union's reluctance to reveal detailed facts on their aircraft.

The Observer's Book of Aircraft, compiled by William Green. Frederick Warne & Co Ltd, 40 Bedford Square, London WC1B 3HE. **Price 75p.**

NOW IN ITS 24th year, this indispensable pocket reference source for aviation enthusiasts includes the essential data on 137 aircraft currently in production, under test, or scheduled to begin their test programmes during the present year. The book embraces the latest aircraft of 18 countries, and includes the Rockwell B-1 variable-geometry strategic bomber, the General Dynamics YF-16, and the Shin Meiwa US-1 air-sea rescue aircraft, currently the world's largest amphibious flying boat. As usual, each aircraft is illustrated with a photograph and a three-view silhouette. Containing 256 (albeit small) pages, it really does represent excellent value in these inflationary times.

Robey Aircraft Production, by John Walls. Aero Litho Co (Lincoln) Ltd. Available from Miss J. M. Draper, 141 Hawton Road, Newark, Notts. **Price 45p plus 8p postage.**

THIS PUBLICATION from the Lincoln enthusiast John Walls provides an eye-opener of the part played by this heavy engineering firm during the Great War of 1914-1918. Aircraft produced included Sopwith Gun-Bus, Short 184's, Morris Farman S.7 and aircraft of Robey's own design. This book is well illustrated with many interesting photographs of inside the works showing aircraft in construction, rare shots of the Sopwith Gun-Bus, line drawings of the Robey Scout, Short 184, Morris Farman Longhorn (1:72 scale) and the intriguing Robey Peters Type RRF 25. *Ruston Aircraft*

Production is also still available from the same source and Clayton Shuttleworth's story is in course of preparation to complete a trio of cameos of Lincoln's contribution to the aircraft industry.

Aircraft 1975, edited by John W. R. Taylor. Ian Allan Ltd, Terminal House, Shepperton, Middlesex. **Price £2.75.**

NOW IN ITS 25th year of publication, this hardy annual again maintains the high standards set in previous years with a wide range of articles to cater for most aviation interests, both civil and military, from hang-gliding to guided missiles.

The editor, John Taylor, leads off with a thought provoking look forward to the year 2,000, describing the possible successor to Concorde in the form of a 4,000 mph airliner, powered by liquid hydrogen. Whilst the civil airliner market has had a setback due to the fuel crisis, military projects proceed apace with several new types under development in both East and West.

This is followed by a unique feature of these annuals, being a listing of important aviation events covering the period April 1973 to March 1974. Sadly, however, some of the items listed have since fallen victim to financial problems and are now problems no more.

Thence follows a series of most readable chapters covering such subjects as the organisation that is required to stage a Shuttleworth Flying Display, F-111 operations in South-East Asia, a flight in a Wright biplane, an interview with the leader of the Rothmans Aerobatic Team 'Manx' Kelly, a nostalgic look back to the age of the flying-boat, a survey of in-flight re-fuelling operations, the story of the Gee Bee racers of the '30s, aviation in Gibraltar, and details of where preserved aircraft of the 1914-18 War may be seen. All these articles are well illustrated with some pages in full colour.

Also there are two photo features, one covering the Skylab project, the other being a collectors' corner of rare subjects over the years. Even the inside covers and the title pages carry large photographs and with its eye-catching dust-jacket featuring the Tomcat, this book is good value and looks all set for its next 25 years.

'Nothing Heard After Take-off' — A Short History of No 7 Squadron, Royal Air Force 1914-1974, available from 7 Squadron, RAF St Mawgan, Newquay, Cornwall. **Price 45p.**

THIS 60-PAGE history of No 7 Squadron provides a very good record of the life story of one of the RAF's most famous squadrons. It is well illustrated, and includes recollections of those who served with the squadron.

After using a mixture of aircraft in the First World War, No 7 settled to a long career as a night bomber squadron flying Vimys, Virginias, Heyfords, Whitleys and in 1940 became the RAF's first Second World War four-engined bomber squadron when it was given the task of working up the Stirling.

Lancasters replaced the Stirlings in 1943 by which time No 7 was part of 8 Group. Lincolns were used post-war then came the Valiant.

In May 1970 a new phase in the squadron's career — well written up in this history — occurred when it took up a target-towing role using Canberras which it still operates. The book is well worth having if squadrons interest you.

US Pursuit Aircraft, by G. R. Duval. D. Bradford Barton Ltd, Trethellan House, St Aubyns Road, Truro, Cornwall. **Price £3.50.**

ANOTHER LARGE pictorial book in this publisher's range, dealing with US pursuit aircraft from 1918 to 1936. As such, it will probably have a limited appeal to modellers since there does not seem to be very much modelling interest in the inter-war period, and certainly there are very few kits around from this era, but for the true aviation enthusiast it will prove a valuable addition to the bookshelves. Each page contains one to three large, clear, black-and-white photos of such types as the Thomas-Morse MB-3, Curtiss Hawk, Boeing P-12 and 'Peashooter'.

American Flying Boats, by G. R. Duval. D. Bradford Barton Ltd, Trethellan House, Truro, Cornwall. **Price £3.15.**

PRODUCED IN exactly the same format as the recent *British Flying Boats*, this pictorial work maintains the same high standard that was set by the first book. Every type of American flying boat gets a photograph and short caption, and some of the photographs are superb. The types range from the early Curtiss boats up to the Sea Master and Sea Dart. In between one can find some gems such as the odd XSS-2 scout amphibian, the Hughes H-4 giant, the Corregidor and the Martin PM-1. Old favourites such as the Catalina and Coronado are also well covered. The overall effect is that this will be the sort of book to keep taking off the shelf for repeated browsing, but the price is rather high for what is really only a specialised picture album. This book would make an ideal present for that special occasion, but otherwise many will find it too costly.

World's Airliner Registrations, 4th edition, by David Mondey. Ian Allan Ltd, Terminal House, Shepperton, Middlesex. **Price 95p.**

THIS TYPE OF book is very hard to review since it is a form of listing familiar to all aviation enthusiasts. It consists of a listing under aircraft types of all the known airliners together with their c/n, owner, etc in the usual Ian Allan style. It is inevitable that a work of this nature should date rapidly but it is basically correct to the beginning of 1975. There are no illustrations so the tyro airline spotter will need some form of auxiliary recognition manual. Information on

Russian airliners is not surprisingly rather sparse but the rest of the listing covers everything from the Skyvan to the TriStar.

Military

Round Shot and Rammers, by Harold L. Peterson. Published in the UK by Arms and Armour Press, 2-6 Hampstead High Street, London NW3. **Price £3.20.**

ALTHOUGH THIS book deals mainly with artillery in America its contents will be of interest to a much wider audience. It deals only with smooth-bore artillery and thus starts off at around 1539 and ends with 1865. In between, therefore, not only is the indigenous American gun covered but also the various British, French and Spanish guns that were used on the American continent.

In many ways this book makes an ideal primer for the uninitiated to learn about smooth-bore artillery. Described are the various types of guns and howitzers, the various artillery systems such as the Gribeauval, and the definitions of the various sizes of artillery pieces.

The book is written in a style that is easy to read and there are numerous diagrams provided to back up the text. All of these illustrations are drawings, but what will probably appeal most to the modelling fraternity are the numerous three-view drawings of the various main types of gun. These drawings are as detailed as any modeller would wish and each is provided with a scale so that each drawing can be either scaled up or down as required.

If anyone can absorb all the information that is contained in this pleasant book, he will have little to learn about smooth-bore artillery, and wargamers will find it a most useful background volume. A very useful book and good value for money.

The Armies of Europe Today, by Otto von Pivka. Osprey Publishing Ltd, 12-14 Long Acre, London WC2E 9LP. **Price £3.95.**

THIS MAGNIFICENT book is nothing less than an encyclopaedia of current European military power, and will be an invaluable reference source for all military students and wargamers specialising in 'modern' games.

A typical entry is that dealing with the UK, which lists the manpower, numbers of tanks, submarines and other ships, aircraft and missiles in service, number of reserves, defence spending, deployment and organisation of the British army, a list of current regiments and divisions, British army equipment with detailed data tables, and describes British army uniforms, flags and standards.

The book, which contains 232 pages, many of them in colour, is divided into three sections dealing respectively with countries within the NATO alliance; Warsaw Pact countries (including Russia); and neutral and non-aligned nations.

There is an appendix giving comparative armoured characteristics, a second listing NATO artillery equipment of American origin and a third summarising the anti-tank projectors and guided weapons of the

Western World.

The mass of photographs, most of them very clearly printed, make the book a useful purchase for modellers as well as military students and enthusiasts, and this is one book which can be firmly recommended for your bookshelves.

The Churchill, by Bryan Perret. Ian Allan Ltd, Terminal House, Shepperton, Middx. **Price £3.15.**

ONE OF THE Ian Allan 'Armour in Action' series, this companion volume to *Valentine* and *Matilda*, by Bryan Perret, makes interesting reading. Some 66 photographs illustrate the Churchill in its many roles and on many battle fronts.

Starting with the tragic Dieppe affair when so much was lost and also learnt so quickly, the story unfolds through North Africa, Italy and Normandy and North West Europe. The battles described, crews' comments and technical details all gell to give an interesting character study of the Churchill and the crews who operated her in a love/hate relationship.

Amusing and tragic, the war of the Infantry tank and its crews is well related and makes absorbing reading.

Twelve sketch maps of some of the battles would have been more use if they had all shown the distances involved or been to scale. The last ten pages are devoted to drawings of various marks of Churchill, interiors and mechanical details.

Bir Hacheim — desert citadel, by Richard Holmes. Pan/Ballantine Illustrated History of World War II — Battle Book. Pan Books Ltd, 33 Tothill Street, London SW1. **Price 50p.**

THE TITLE MAY be misleading as only one chapter deals specifically with the battle for Bir Hacheim, when the Free French forces put up such a brave and spirited defence of this desert outpost. In fact the book rambles from the First World War through the fall of France in 1940, the rise of Free France and General De Gaulle, through the North African Campaign and the battles against Rommel's DAK. On to the Allied invasion of Europe and the liberation of Paris, political machinations of the French 'leaders' and the work of the various Resistance groups. It is really a story of the fighting French of which Bir Hacheim marked a turning point but is nonetheless interesting if in places rather superficial.

German Airborne Troops, by Roger Edwards. Macdonald and Janes, Paulton House, 8 Shepherdess Walk, London N1 7LW. **Price £2.50.**

THIS BOOK IS a little different from the previous offerings on the Fallschirmjaeger — fewer pictures, more text. The material has come from many sources — some of it is new and interesting — but the sum of all this is a patchwork book. Whatever his sources, the author has not read far enough, or made sufficient check of his sources, to make a complete and accurate book. There is too much padding in the early chapters, particularly those on equipment, where much has been missed out.

The combat history section is well

detailed and mapped, but lacks detail on the later airborne operations — for example, the epic escape march of FJR3 through the Allied lines in Sicily is missed as if it never happened: the text here gives an erroneous impression of the whole Sicilian episode. Nor can we recall a Dreadnought tank in Allied service 1944-5 (page 159) — one of the many irritating discrepancies. A better book than this is needed.

Flags and standards of the Third Reich — Army, Navy and Air Force, by Brian Leigh Davis. Macdonald and Janes, Paulton House, 8 Shepherdess Walk, London N1 7LW. **Price £4.50.**

THIS BOOK IS superb, and must become the standard for years to come on the subject. The photographs are clear, the artwork first class and the material laid out so that it can be found without cross-referencing. What more can we say? An invaluable book for modeller and military enthusiast alike.

History of the Scottish Regiments, by W. P. Paul. Available in limited numbers from Mr M. E. Taylor, Scottish Military Collectors Society, 'Ardlea', 11 Horselethil Road, Glasgow G12 9LX. **Price 45p** plus 25p postage (overseas 35p IMO) and self-addressed label.

ORIGINALLY PUBLISHED some years ago as a 'charity special', this large paperback contains good potted histories of the Scottish regiments prior to the disbandments and amalgamations of the '60s. The centre colour section contains a good spread of uniform prints by Hamilton Smith, Martens, Simkin and others. Recommended.

History in camera: **Victoria's Wars**, by I. F. W. Beckett. Shire Publications Ltd, Cromwell House, Church Street, Princes Risborough, Aylesbury, Bucks. **Price £1.15.**

ONE IN A spate of recent books based on old 19th Century military photos, Mr Beckett's volume is an excellent introductory source on this period. Through a selection of photographs from the National Army Museum archives and a descriptive text, he gives the reader the 'feel' of the campaigns in the Crimea, India, China, South Africa and even Tibet during the period of Britain's might, and his book can thus be recommended to all wargamers as well as military enthusiasts interested in the period but not knowing where to begin.

Naval

The Naval Officer's Uniform Guide, by J. B. Castano. Patrick Stephens Ltd, Bar Hill, Cambridge CB3 8EL. **Price £5.15.**

THIS BOOK WILL probably only have a limited appeal to British modellers, partly because its subject matter is modern American naval uniforms, and partly because at over £5 for 128 pages, and with no colour, the book can hardly be said to represent good value for money in anyone's language. There are, however, a large number of clear black-and-white photos and drawings as well as an explanatory text which is primarily designed to tell American naval officers what they should wear and when.

Photopage — the Duxford RE8

Described and illustrated by Michael J. F. Bowyer



The basic colouring of the RE8 was khaki-green for the upper surfaces and clear varnish for the lower. In the case of F3556 the colours have darkened considerably, particularly the creamy underside tint. Red-white-blue roundels were applied beneath the wing tips, above the mainplane and on the fuselage, with red-white-blue rudder stripes (red aft). Removal of the fabric on the port fuselage side has revealed some of the construction, and the absence of engine panelling shows the engine installation. The aircraft has full fabric covering on its starboard side, which carries a white serial and the national identity ring outlined in white. Finish of the engine is partly silver, partly black. The struts and propeller are of varnished wood, while engine bearers are a similar medium brown colour. Fuselage interior appears tan.

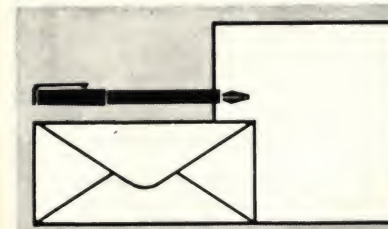


ONLY TWO EXAMPLES of the RE8 are known to have survived. One is in Brussels, the other in the Imperial War Museum's collection at Duxford. There it is being restored by members of the East Anglian Aviation Society.

F3556, the machine at Duxford, first flew in October 1918, after which it was crated and despatched to France. Without seeing any unit service it was returned to England for storage until February 1920 when it came onto display in the Crystal Palace, where the IWM was then in residence.

For decades it has hung in the museum at Lambeth. Now it is being restored to a state which might one day permit it to be flown.

Rarely has it had any airing, but it left its hangar last summer on the occasion of the Duxford Open Day when the accompanying photographs were taken. □



letters to the editor

Merchantmen

WITH REFERENCE to Bryan Philpott's article, in the February issue, on converting an Airfix Vanguard to a Merchantman, it seems he was far too busy flying in one of these aircraft, to notice the exterior finish! The drawing shows the underside of the fuselage, below the cheatline, as silver. In fact, Vanguards and Merchantmen alike have always been painted light grey and are to this day. Even Mr Philpott's finished model appears to have its lower fuselage and wings painted silver! The wings should be red overall with only silver leading edges, tips and engines. The tailplanes are white and propeller spinners light grey again. The front of the engine nacelles, immediately behind the propellers is matt black. The photographs accompanying the article illustrate all these points, so I am quite surprised Mr Philpott slipped up.

Adrian M. Balch, Swindon.

MR BALCH is quite correct in his description of the normal finish for Merchantman aircraft. However, on the occasion I flew in 'Echo Oscar' — January 1974 — this aircraft was finished in matt silver and had the red paint removed from its wings. I thought that this was a prelude to the aircraft being repainted in the new British Airways livery but apparently this was not so as at the time of writing, February 1975, no Merchantmen carry this finish and 'EO' is back to normal.

British Airways have been kind enough to confirm the finish of the aircraft at the time of my flight, and have also stated that in their opinion matt silver mixed with a small amount of light grey would give a fair representation of the finish normally applied to Merchantmen. Wing leading edges, wing tips and flaps/trailing edges, are polished silver as stated by Mr Balch.

This reader's query does help to prove that it can be dangerous to generalise on aircraft finishes, as there are times when any machine might carry a temporary scheme that is not exactly 'correct' when compared with what is officially laid down. It would appear that this applies equally to civil and military aircraft!

Bryan Philpott.

Irish Army

IN YOUR MARCH 1974 edition you published a most interesting article on the Irish Army by Terry Gander and Chris Foss. Very little has appeared in print in relation to the Irish Defence Forces, so any reader who may wish to pursue and supplement your article may like to know about the *Irish Defence Forces Handbook 1974* published recently.

June 1975

The last time the handbook appeared was in 1968 when it immediately sold out and became unavailable. The new edition, by Commandant P. D. Kavanagh, is divided into three parts — the origin and development over half a century; the Defence Forces of today; and the Army and the United Nations. It is a 'must' for anyone interested in this subject and at 55p including postage is very good value for money. Copies are available from An Cosantoir, Army Headquarters, Parkgate, Dublin 7, Ireland.

A. P. Kearns, Dublin.

Essex aviation

I AM IN THE process of compiling a book on aviation in Essex during the Second World

Your queries answered

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Opinions expressed by correspondents on this page are their own and do not necessarily reflect the views of the Editor or Airfix Products Ltd.

War, which will include a section on crashes and force-landings, and am seeking photos or snapshots of RAF aircraft which crashed in Essex. Should any reader be able to loan me photographs of this nature, I would be very pleased to hear from them. Any material loaned would be carefully handled, and returned promptly.

Ian C. Mactaggart, Craig-y-Llyn, Braintree Road, Gosfield, Halstead, Essex CO9 1PR.

Did you know?

THAT THE Military Heraldry Society caters for collectors of badges and insignia, particularly cloth badges, military as well as police etc. They have over 450 members throughout the world, varying from novices to experts. If you are interested in collecting badges, their subs are only £1 a year. For further details please contact Mr T. Sampson, 47 North Road, Bristol BS6 5AP.

208 Squadron

SQUADRON LEADER P. A. R. Jones, 208 Squadron, RAF Honington, Bury St Edmunds, Suffolk, would like to contact the reader who supplied us with a photo of 208 Squadron Audaxes at Heliopolis in 1938, printed in the June 1972 issue, Mr D. W. Lamplough. The squadron historian, Flt Lt W. Ward, would also like to hear from any readers with photos of 208 Squadron aircraft from its early days up to the Second World War.

Hawk kits

AFTER READING the letter from R. K. Bushe concerning Hawk aircraft kits in the January issue, I wrote to the Testor Corporation of Canada. In their reply they stated that they

were negotiating with a firm in the UK to handle their kits in Britain. If the deal is concluded satisfactorily, the firm's address will be released later.

B. Muirhead, Cromer.

8th Army

REGARDING PART 4 of John Sandars' '8th Army in the desert' series (October 1973), my own information is that there were six Churchills at El Alamein, not three as stated. They were under the command of Major N. King of the Royal Gloucester Hussars, and were known as 'Kingforce'. The tanks were Churchill Mk IIIs with no modifications.

Kingforce's Churchills were painted dark brown over a basic sand colour and were serialised as follows: T68189, T31655,

T68186, T68714, T31954 and T31950. These serials were painted in white on the turret sides and on the hull, just behind the hull escape doors.

Kingforce was under the direct command of HQ, 1st Armoured Division, at Alamein. It suffered only one casualty, T31655, which was brewed up in Kingforce's first action in the Kidney Ridge area.

Stephen Culler, Wirral.

Flexible sprue

WHILST TRYING to attach winch cables to the ramps of a Scammel tank transporter, I tried ordinary stretched sprue, but found it too rigid for realism. Since I had a spare piece of flexible sprue from the tracks of a Matchbox PzKpfw III handy, I tried stretching that.

Not only is the result flexible, but when freely suspended it will sag (telegraph wires etc), take up ground contours (cables, hoses etc), can be extruded in various diameters and, most important, is elastic. The ramps on the transporter can be lowered without breaking or disconnecting the cables!

The only problem is fixing. Cement is not really satisfactory, but if a hole is drilled, and countersunk on the wrong side, the end of the sprue can be passed through and heat 'blobbed', then sprung back into the hole and cut off flush. This could be applicable to biplane rigging, but no doubt the individual reader will think of other uses to suit his particular 'bent'.

R. A. B. Johnson, Manchester.

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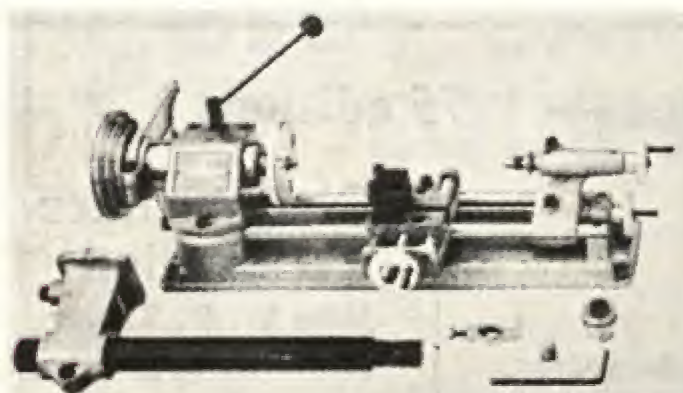
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